

FM 4-02.19 (FM 8-10-19)

**DENTAL SERVICE
SUPPORT IN A
THEATER OF
OPERATIONS**

HEADQUARTERS, DEPARTMENT OF THE ARMY

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DEPARTMENT OF THE ARMY
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DENTAL SERVICE SUPPORT IN A THEATER OF OPERATIONS

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PREFACE

This publication provides basic doctrine and the tactics, techniques, and procedures required for dental service support (DSS) in a theater of operations (TO). It focuses on current combat health support (CHS) doctrine. The tactics, techniques, and procedures provided are not all-inclusive.

This publication implements and/or is in consonance with the following North Atlantic Treaty Organization (NATO) International Standardization Agreements (STANAGs) and American, British, Canadian, and Australian (ABCA) Quadripartite Standardization Agreements (QSTAGs):

NATO STANAG	ABCA QSTAG	TITLE
2014		Warning Orders, Operation Orders, and Administrative Service Support Orders
	520	Operation Orders, Tables, and Graphs for Road Movement
2068	322	Emergency War Surgery
2127	536	Medical, Surgical, and Dental Instruments, Equipment, and Supplies
2128		Medical and Dental Supply Procedures
2454		Regulations and Procedures for Road Movements and Identification of Movement Control and Traffic Control Personnel and Agencies
2931		Orders for the Camouflage of the Red Cross and Red Crescent on Land in Tactical Operations
2122	535	Medical Training in First Aid, Basic Hygiene, and Emergency Care

The use of the term “level of care” in this publication is synonymous with “echelon of care” and “role of care.” The term “echelon of care” is the old NATO term. The term “role of care” is the new NATO and ABCA term.

Users of this publication are encouraged to submit comments and recommendations to improve the publication. Comments should include the page, paragraph, and line(s) of the text where the change is recommended. The proponent for this publication is the United States (US) Army Medical Department Center and School (AMEDDC&S). Comments and recommendations should be forwarded directly to **Commander, AMEDDC&S, ATTN: MCCS-FCD-L, 1400 East Grayson Street, Fort Sam Houston, Texas 78234-5052**, or by using the E-mail addresses on the Doctrine Literature website at <http://dcdd.amedd.army.mil/index1.htm> (click on Doctrine Literature).

The staffing and organizational structure presented in this publication reflects those established in the Army of Excellence base table(s) of organization and equipment (BTOEs) (L-series) and the Army Force Projection BTOEs (A-series) that were current at the time this manual was published. However, such staffing is subject to change to comply with manpower requirements criteria outlined in Army Regulation (AR) 71-32 and may be subsequently changed by your modified table of organization and equipment (MTOE). Appendix A discusses in detail the BTOE (A-series) that is an important part of the Medical Reengineering Initiative (MRI) in Force XXI and how the DSS will be incorporated into that force.

As the Army Medical Department (AMEDD) transitions to the 91W military occupational specialty (MOS), positions for 91B and 91C will be replaced by 91W when new unit MTOE take effect.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

The use of trade names in this publication does not imply endorsement by the US Army, but is intended only to assist in the identification of a specific product.

CHAPTER 1

OVERVIEW OF DENTAL SERVICE SUPPORT**1-1. General**

a. Dental service support is provided across the continuum of military operations—war, conflict, and peace. As with CHS, DSS conserves the fighting strength by returning dental casualties to duty as far forward as possible and minimizing the number of patients with dental injuries or disease whom must be evacuated from the TO.

b. Dental service support within the TO is accomplished with the use of modern, lightweight equipment, levels of dental care, and flexible, responsive dental organizations. To enhance the effectiveness of dental support to deployed forces, the AMEDD MRI organizational structure (see Appendix A), once fielded, will:

- Promote dental health.
- Maximize the return to duty (RTD) of dental casualties.
- Provide a resuscitative surgical capability for maxillofacial injuries.
- Maintain the dental fitness of theater forces.
- Reinforce medical treatment facility (MTF) personnel during times of mass casualty operations.

c. The categories of dental care within the TO is comprised of operational emergency dental care and essential dental care. Further, one category of dental care (comprehensive care) is provided in the continental United States (CONUS) support base. For additional information on the categories of dental care refer to paragraph 1-4.

1-2. Echelons of Medical Care

Combat health support is arranged into four echelons of medical care extending from the point of injury or wounding and extending rearward through successively higher numbered echelons of care within the theater. When patients medical conditions require evacuation out of the TO for specialized medical and/or perhaps surgical care, the CONUS support base becomes Echelon V. En route medical care is provided (as necessary) during evacuation to sustain the patients during transit from one echelon to the next successively higher numbered echelon of care. Excluding Echelon I, dental assets in the TO are established at all echelons of care. Each higher numbered echelon reflects an increase in capability, but can perform the functions of each lower numbered dental echelon. An explanation of the echelons of medical care is provided in the glossary and in-depth discussion is provided in Field Manual (FM) 8-10.

1-3. Dental Service Support Mission

Dental service support is one of the ten functional areas of CHS. As such, it contributes to the overall CHS mission of conserving the fighting strength. The DSS mission is to—

- Promote dental health.
- Prevent and treat oral disease.
- Provide far forward dental treatment.
- Provide early treatment of severe oral and maxillofacial injuries.
- Augment medical assets during mass casualty operations.

1-4. Categories of Dental Care

Within the TO, DSS provides operational care which is composed of *emergency dental care* and *essential dental care*. Another category, normally found only in fixed facilities in the US, is *comprehensive care*. These categories are not absolute in their limits; they are the general basis for the definition of the dental service capabilities available at the different CHS echelons of care.

- *Operational Care.* Care given for the relief of oral pain, elimination of acute infection, control of life-threatening oral conditions (hemorrhage, cellulitis, or respiratory difficulty) and treatment of trauma to teeth, jaws, and associated facial structures is considered *emergency care*. It is the most austere type of care and is available to soldiers engaged in tactical operations. Common examples of emergency treatments are simple extractions, antibiotics, pain medication, and temporary fillings. *Essential care* includes dental treatment necessary to intercept potential emergencies. This type of operational care is necessary for prevention of lost duty time and preservation of fighting strength. Soldiers in Dental Class 3 (potential dental emergencies) should be provided essential care as the tactical situation permits. Essential care is consistent with Echelon II CHS. (Refer to Appendix B for a discussion of dental classifications.) Dental modules organic to divisions, separate brigade-sized medical companies, and armored cavalry regiment (ACR) medical company, area support medical companies (ASMC), special forces groups (SFG), and the forward treatment section of the area support dental units are equipped to provide essential care. Essential care is also intended to maintain the overall oral fitness of soldiers at a level consistent with combat readiness. Most dental disease is chronic and recurring. Soldier's oral health status will deteriorate from the day of deployment if essential care is not provided by deployed dental support. Soldiers in Dental Class 2 (untreated oral disease) should be provided essential care as the tactical situation and availability of dental resources permit. This level of care is the highest category of operational care available in the TO and is provided by area support dental units and by Echelon II CHS dental modules depending on mission, enemy, terrain, troops, time available, and civilian considerations (METT-TC). The scope of services includes definitive restoration, minor oral surgery, exodontic, periodontic, and prosthodontic procedures as well as prophylaxis.

- *Comprehensive Care.* Treatment to restore an individual to optimal oral health, function, and esthetics is considered *comprehensive care*. Comprehensive dental care may be achieved incidental to providing operational care in individuals whose oral condition is healthy enough to be addressed by the category of care provided. This category of care is usually reserved for CHS plans that anticipate an extensive period of reception and training in theater. The scope of facilities needed to provide this level of dental support could equal that of Echelon III medical facilities.

CHAPTER 2

ORGANIZATION OF FIELD DENTAL SUPPORT**2-1. General**

The responsibility of DSS is to maintain the soldier's oral health by preventing and treating dental disease and injury. To accomplish this, dental support in the TO is organized into a flexible, modular system which can respond to rapidly changing conditions across the continuum of military operations.

This chapter discusses the current organizational structure of the dental assets within the TO as it is today, under Medical Force 2000 (MF2K), Table of Organization and Equipment (TOE) L-Series. (Appendix A discusses the changes made to MF2K by the MRI under the new TOE A-series when activated.)

2-2. Types of Dental Support

a. There are three levels of dental support in the TO—unit, hospital, and area. These levels are defined primarily by the relationship of the dental assets attached to the CHS supporting the patient population within each level.

- *Unit*—provided by a dental module organic to divisional and nondivisional medical companies and all SFG. This module provides emergency dental treatment to soldiers during tactical operations.

- *Hospital*—provided by the hospital dental staff to minimize loss of life and disability resulting from oral and maxillofacial injuries and wounds. The hospital dental staff provides emergency, sustaining, and maintaining dental support to all injured or wounded soldiers as well as the hospital staff.

- *Area dental support*—provided on an area support basis by dental service companies. These dental units provide operational care. The dental companies are comprised of modular dental teams that are capable of operating separate dental treatment facilities (DTF), or by consolidating units and operating one large facility depending upon the operational METT-TC. Other teams are employed to provide far forward emergency and sustaining dental care.

b. Each type of support is described in this chapter.

2-3. Command Dental Surgeon

Coordination of the collective efforts of unit, hospital, and area dental support activities with the overall CHS operation is accomplished through dental representation on appropriate command and control (C2) staffs, usually in the form of a command dental surgeon. The dental surgeon is a special staff officer under the staff supervision of the Adjutant (S1)/Assistant Chief of Staff (Personnel) (G1). In the medical brigade, the dental surgeon is a separate TOE position. In divisions, the comprehensive dental officer assigned to the main support battalion (MSB) fills this position of the division support command (DISCOM). A dental unit commander who also serves as dental surgeon is described as being “dual-hatted.” In some cases, the dental surgeon position is not clearly identified and becomes an *ad hoc* arrangement. In all of these cases,

the dental surgeon works closely with the command surgeon to accomplish his mission. Staff advocacy is a critical element in the development of a coordinated DSS system throughout the TO. Chapter 5 discusses DSS staff functions in greater detail.

2-4. Dental Staff Officer Responsibilities

a. The dental staff officer provides input to the commander on policy, procedures, and plans that concern the oral health and dental care of the command. He determines the resource requirements of the dental portion of the CHS operation plan (OPLAN) by first evaluating the mission statement against his available assets (both dental and personnel) that will be available in theater. He prepares the dental portion of the CHS OPLAN based upon his real assets in theater (Refer to FM 8-55 and FM 8-42 for information concerning the preparation of CHS estimates and plans). He provides technical guidance on dental matters to subordinate dental resources. He monitors the oral health of the supported force population and the readiness of all assigned dental assets (personnel and equipment). He continually evaluates CHS plans to determine dental resource requirements and adequacy of assets. Specific duties may include surveillance of—

- Status of dental resources in the area of responsibility (AOR).
- Operational requirements of supported troops (for example, number and types of units supported or in the AOR; number of troops in supported units or AOR; the anticipated duration of the operation; the tactical situation; the location and distribution of supported units; and the expressed needs of commanders).
- Provision of dental services to enemy prisoners of war (EPW), refugees, and others.
- Provision of dental services to other supported populations when authorized and directed to provide care.

b. The dental staff officer also serves as advisor to the commander on dental matters. On the basis of the information received from dental surveillance, he makes recommendations concerning the status of the oral health of the command and the delivery of dental care for OPLAN, operation order (OPORD), and policies.

2-5. Dental Staff Officer Positions

a. Division. The senior dental officer in a division is assigned to the MSB. In addition to his patient care responsibilities, he acts as the division dental surgeon and exercises technical supervision over the dental assets in the division forward support battalions (FSB). Dental officers in the FSB serve as dental surgeons to the supported maneuver brigades.

b. Separate Brigades, Medical Groups, Armored Cavalry Regiments, and Special Forces Groups. The dental officer in the medical element of these units also serves as the dental surgeon for the parent unit.

In the medical group, there is not a dental officer assigned to the medical staff. Further, under the MRI, the medical group is eliminated in the force structure.

c. Medical Brigade (Corps: TOE 08422L100; communications zone (COMMZ): TOE 08422L200). A dental surgeon is located in the command section. He exercises technical control over dental assets in assigned hospitals and dental units subordinate to the medical brigade. Dental surgeons of corps medical brigades are dual-hatted as the brigade dental surgeon and provide technical supervision for unit-level dental support and staff dental assets assigned within the medical brigade. A senior dental noncommissioned officer (NCO) assigned to the security, plans, and operations section assists the medical brigade dental surgeon.

d. Medical Command (TOE 08611L000). There are three dental staff officers in the headquarters and headquarters company, medical command (MEDCOM).

(1) The theater MEDCOM dental surgeon establishes and disseminates Army theater policy on dental matters. He exercises technical control over all dental units in the TO through the medical brigade dental surgeons. He directs the dental service element of the headquarters and provides dental staff support to the MEDCOM commander.

(2) The MEDCOM assistant dental surgeon is located in the dental service element of the headquarters. He assists the MEDCOM dental surgeon by recommending policies and procedures and providing DSS coordination with other staff elements.

(3) The MEDCOM preventive dentistry officer supports the MEDCOM dental surgeon and the assistant dental surgeon in all staff actions. Specific duties include—

- Providing oral health surveillance information in support of policy and procedure development.
- Developing plans and orders concerning oral fitness and preventive dentistry programs.
- Recommending treatment policies.
- Developing programs for dental support of humanitarian assistance or nation assistance.

2-6. Dental Support Within a Theater of Operations

a. Unit Dental Support. Dental personnel organic to Echelon II (see Glossary) medical units provide this support. Dental units are designed under a modular concept to allow flexibility and ease of augmentation, reinforcement, or reconstitution. Dental elements under the modular support system (Echelon II) are organic in the area support squads of division medical companies and corps, separate brigades and ACR, and the medical platoon of the SFG. Dental modules are also found in the area support

squads of the ASMC located throughout the combat zone (CZ) and COMMZ. The dental modules that are the basis of unit dental support have the capability to provide operational care that is discussed in Chapter 1. Their primary objective, however, is to return to duty (RTD) the soldier as rapidly as possible.

(1) *Unit dental support organizations.* The dental modules are organic to the area support squad in the medical companies of each division, separate brigade/ACR, SFG, and area support medical battalion (ASMB). Each has a general dentist and dental specialist assigned to them. Each division has one comprehensive dentist in the dental module of the MSB medical company and a general dentist in the dental module of each FSB. A dental specialist is also assigned as part of each of these modules.

(a) *Dental modules.* The modules in separate brigade/ACR medical companies and SFG have a general dentist and a dental specialist. Similar to the division, the dental modules in separate brigades/ACR are in the area support squads of the medical company/troop of the support battalion/squadron. The dental module in the SFG is located in the medical platoon of the service companies of the special operations support battalions.

(b) *Unit dental officer functions.* Each main support medical company (MSMC) dental officer functions as the dental surgeon for his supported unit—a special staff position. In the division, the comprehensive dentist of the MSMC is the division dental surgeon.

(c) *Concept of operations.* Unit dental personnel are not present in sufficient numbers to provide dental care to all the members of their supported units on a continuous basis without support from area support dental units. Therefore, depending on the tactical situation, it may be necessary to return personnel to their units with other than definitive treatment (for example, temporary as opposed to permanent restorations) (See Appendix B). The primary concern of unit dental personnel is to RTD the soldier as expeditiously as possible. In planning the concept of the operation, unit level dental support is dependent upon corps-level area support dental assets in numbers sufficient enough to support the manpower requirement criteria for operational dental care. Unit dental support relies on corps-level area dental support units for assistance in providing operational care. Modules of area dental support units also augment or reconstitute unit dental elements when necessary.

(2) *Dental casualties.* Dental casualties in maneuver battalions are evacuated from forward areas to the battalion aid station. Here they are evaluated and, if required, are further evacuated to the clearing station of the medical company to be seen by the dental officer assigned to the area support squad. This officer examines the patient and provides treatment necessary to return him to duty. If the treatment required is beyond the capability available, the patient is evacuated or referred to the supporting corps area dental support unit or hospital, consistent with the patient's condition and the tactical situation.

b. *Hospital Dental Support.* Dental personnel organic to the combat support hospital (CSH) provide TOE 08705L000, the field hospital (FH), TOE 08715L000, and the general hospital (GH), TOE 08725L000.

(1) *Organization.* The primary mission of hospital dental sections is to minimize the loss of life and disability resulting from severe oral and maxillofacial injuries and wounds. When patient care workload permits, dental resources provide dental treatment to hospital patients and staff. In addition,

treatment is provided to patients referred by other DTF and MTF when oral and maxillofacial care is required beyond the capability of the referring facility.

(2) *Modular concept.* All three types of hospitals with organic dental capabilities (CSH, FH, and GH) are organized under the modular concept. (Refer to FM 8-10-14 and FM 8-10-15.)

(3) *Level of dental capability.* The same level of dental capability of all three hospitals is found in the hospital unit, base.

(4) *Surgical capability.* Attaching a medical team, head, and neck surgery, TOE 08527LA00, can augment the maxillofacial surgery capability in these hospitals. This team includes an oral surgeon. As with other units under the modular concept, the dental sections of the different hospitals are interchangeable.

c. *Area Dental Support.* Area support dental units provide dental service companies. As the name suggests, area dental support is provided within a designated geographic AOR. Within the AOR, area dental support units may be tasked to provide direct support (DS) to unit or hospital dental support elements. They may also be tasked to reconstitute unit dental support modules within their unit. Area dental support represents a major share of the dental capability within the area of operations (AO).

2-7. Headquarters and Headquarters Detachment, Medical Battalion (Dental Service), TOE 08476L000

a. *Organization.* The headquarters and headquarters detachment (HHD) is composed of three officers and seven enlisted members organized into two sections (Figure 2-1). The command section has two officers and one enlisted member and the operations administration section is composed of one officer and six enlisted personnel.

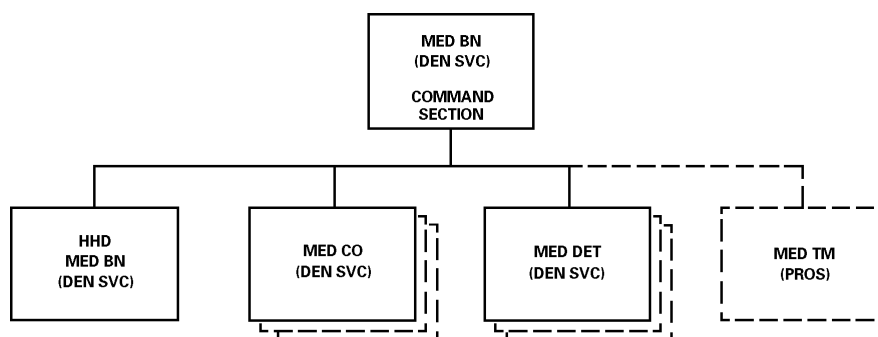


Figure 2-1. Medical battalion (dental service), TOE 08476L000.

b. Mission. The HHD provides C2 to assigned and attached dental or other organizations such as the preventive medical detachment. It also provides administrative, logistics, and personnel support to the headquarters, and technical guidance to subordinate units on medical equipment maintenance and Class VIII supply.

c. Assignment. This unit is assigned to a MEDCOM, TOE 08611L000; medical brigade, TOE 08422L; or medical group, TOE 08432L000.

d. Capabilities. This unit provides—

- (1) Command and control of three to eight assigned or attached dental units.
- (2) Allocation of dental resources (personnel and equipment) to ensure the adequacy of dental service to all units within the assigned AOR.
- (3) Technical expertise, coordination, and support to subordinate units for accomplishing their medical equipment maintenance and Class VIII supply mission.
- (4) Current information concerning the dental aspects of the combat service support (CSS) situation to higher headquarters.

e. Basis of Allocation. One per three to eight subordinate dental service organizations.

f. Mobility. This unit is capable of transporting 50 percent of its personnel and equipment in a single lift using organic vehicles.

2-8. Medical Company (Dental Service), TOE 08478L000

a. Organization. The medical company (dental service) has 16 officers and 43 enlisted members organized into four sections—

- Headquarters and support section;
- Dentistry/prosthetic sections;
- General dentistry section; and
- Forward dental treatment section (Figure 2-2).

The company is modular in design and provides DSS on an area support basis within its AOR.

(1) The headquarters and support section is composed of officers (the commander and the executive officer) and enlisted individuals (the company's senior NCO, along with support personnel). These support personnel specialize in nuclear, biological, and chemical (NBC) operations; unit supply;

combat health logistics (CHL); administration; and automotive, power generation, and medical equipment maintenance. A cook is assigned, but as the company does not have the capability for independent field feeding, the cook is generally attached to the supporting field feeding facility.

(2) The dentistry/prosthetics section has a prosthodontist and three general dental officers, a dental facility NCO, preventive dental specialists, dental laboratory personnel, and supporting dental specialists. The medical company (dental service) commander also acts as the chief of the dentistry/prosthetics section.

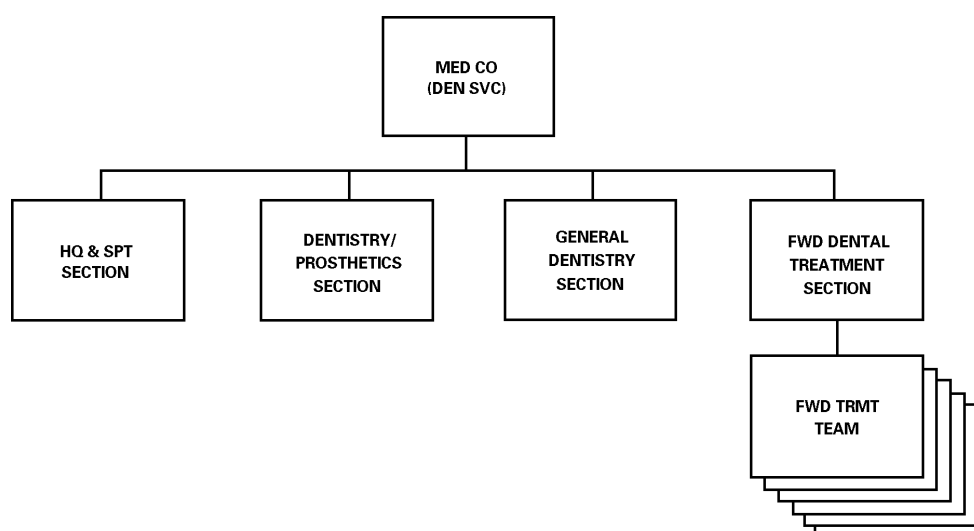


Figure 2-2. Medical company (dental service), TOE 08478L000.

(3) The general dentistry section has a comprehensive dental officer as chief, three general dental officers, a dental facility NCO, preventive dental specialists, and supporting dental specialists.

(4) The forward dental treatment section is organized into six independent dental modules with organic power and transportation.

b. Mission. This unit provides operational care consisting of emergency, and essential dental care.

c. Assignment. This unit is assigned to the HHD, medical battalion (dental service), TOE 08476L000.

d. Capabilities. This unit provides operational care, including prosthodontic specialty care. It is composed of one to eight field DTF consisting of one or two base DTF providing operational care and up to

six dental treatment modules which can reinforce or reconstitute the division dental modules, when necessary. It can support small or forward troop concentrations. The unit also provides unit maintenance of organic equipment for the HHD, medical battalion (dental service), TOE 08476L000. It is capable of augmenting the advanced trauma management (ATM) capabilities of other MTF during mass casualty situations.

e. Basis of Allocation. One per 20,000 troops supported.

f. Mobility. This unit is capable of transporting 50 percent of its personnel and equipment in a single lift using organic vehicles.

2-9. Medical Detachment (Dental Service), TOE 08479L000

a. Organization. The medical detachment (dental service) is organic to the medical battalion (dental services) TOE 08476L000. Its mission is to provide operational care consisting of emergency and essential care on an area support basis within a TO. (Figure 2-3).

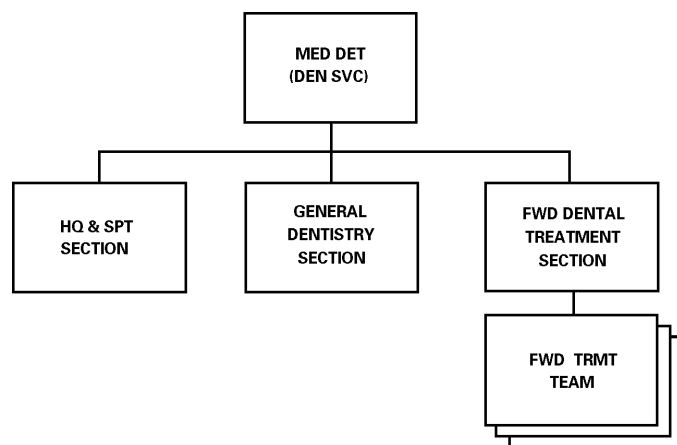


Figure 2-3. Medical detachment (dental service), TOE 08479L000.

(1) The headquarters and support section is roughly similar to that of the company, but smaller. The commander of this unit is a comprehensive dentist and the facility chief is an NCO. There is no executive officer. This section includes personnel for administration; CHL; and automotive mechanic, power generation, and medical equipment maintenance; however, it has no field feeding capability. The detachment has no assigned cook or unit supply NCO.

(2) This unit provides dental treatment modules to reinforce or reconstitute the division dental modules when necessary and to operate the field dental clinic. Up to three dental treatment modules can be provided for small or forward troop concentrations.

(3) The forward dental treatment section is organized into three independent dental modules with organic power and transportation.

b. Mission. This unit provides operational care consisting of emergency and essential dental care.

c. Assignment. This unit is assigned to the HHD, medical battalion (dental service), TOE 08476L000.

d. Capabilities. This unit provides operational care for 8,000 troops. It is composed of from one to four field DTF. These consist of a base DTF providing operational care and up to three dental treatment modules to reinforce or reconstitute the division dental modules, when necessary, or provide operational care for small or forward troop concentrations. The unit is capable of augmenting the ATM capabilities of other MTF during mass casualty situations.

e. Basis of Allocation. One per 8,000 troops.

f. Mobility. This unit is capable of transporting 50 percent of its personnel and equipment in a single lift using organic vehicles.

2-10. Medical Team (Prosthodontic), TOE 08588LA00

The medical team (prosthodontic) is a MF2K equivalent to the H-edition TOE unit, team headquarters company HC, dental service augmentation, removable prosthodontic; and team headquarters detachment HD, dental service augmentation, fixed prosthodontic. It incorporates the consolidation of the removable and fixed prosthodontic specialties.

a. Mission. This unit provides additional prosthodontic dental support, when required, by augmenting existing dental and hospital units.

b. Assignment. This unit is assigned to the medical brigade (CZ) or medical brigade (COMMZ) with further attachment to a medical battalion (dental service).

c. Capabilities. This unit provides additional fixed and removable prosthodontic support.

d. Basis of Allocation. The unit provides support for up to 40,000 troops.

e. Mobility. This unit is capable of transporting 33 percent of its personnel and equipment in a single lift using organic vehicles. The unit is capable of transporting 4,000 pounds of equipment. It has 2,789 pounds of TOE.

CHAPTER 3

FIELD DENTISTRY**Section I. INTRODUCTION****3-1. General**

The practice of dentistry in a TO requires employment of the same fundamental skills and standards of practice as would be employed in a garrison clinic. The limitations imposed by the availability of equipment and the demands of the tactical situation require flexibility and expediency on the part of both the dentist and ancillary personnel. Dental commanders at all echelons must establish a sound quality assurance plan as described in Appendix C.

3-2. Objective

The primary objective of field dentistry is twofold:

- Attend to the soldier's dental needs as expeditiously as possible.
- Return the dental patient to duty as quickly and as far forward as possible.
 - a.* Far forward treatment teams eliminate the need to evacuate most dental emergencies to the rear. During combat, the situation may permit only temporary alleviation of pain and suffering.
 - b.* Under less demanding circumstances, the situation may permit more definitive treatment. In all cases, the dental practitioner must accomplish as much as possible in a single sitting to avoid return visits and subsequent lost duty time. This necessity places a greater emphasis on the professional judgment of the dental practitioner and a need to reconcile the patient's needs with the tactical situation.
 - c.* The field DTF should be organized to accomplish only those tasks that are absolutely necessary for the completion of the supported units' assigned missions.

3-3. Medical Evacuation and the Referral of Dental Patients

One of the goals of forward dental treatment is to eliminate the need for evacuation of dental patients to the rear. There are times when dental patients will require medical evacuation. At other times, there will be a need, depending on the tactical situation, for expeditious RTD after the accomplishment of emergency treatment and subsequent referral when the tactical situation permits. The following definitions are provided:

- a. Medical evacuation* is the timely, efficient movement and en route care by medical personnel of the wounded, injured, or disease and nonbattle injury (DNBI) persons from the battlefield and other locations to a MTF/DTF. The gaining MTF is responsible for arranging for the evacuation of patients from the lower echelon of care. Dental patients will not require en route medical care when being transferred to a higher echelon of care; general transportation vehicles may be used.

b. Referral is the process of referring a patient from a lower echelon of treatment for follow-up treatment at a higher echelon when the tactical situation permits. Generally, transportation to a referral DTF is the responsibility of the higher echelon. (See FM 8-10-6 for evacuation procedures.)

c. Return to duty assumes that a soldier is capable of performing his mission in a combat environment. Soldiers who cannot RTD, or who require pharmaceutical regimens that impair performance, may be evacuated to the next higher echelon of care if necessary. A dental patient may be held in a forward support medical company (FSMC) or a MSMC for up to 72 hours rather than being evacuated.

This section implements STANAG 2127 and 2128 and QSTAG 535 and 536.
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Section II. FIELD DENTAL EQUIPMENT

3-4. General

Field dental equipment is organized into dental equipment sets (DES) and dental instrument and supply sets (DISS). In the Deployable Medical System (DEPMEDS)-equipped hospitals, the dental staff is equipped with DEPMEDS dental materiel sets (DMS), plus additional support equipment.

3-5. Design

Dental sets are designed to ensure that the current standards of care are met; however, other important factors are also considered.

Those factors are—

- Mobility considerations, such as weight, and cubic volume.
- Power requirement for the dental sets.
- Equipment to withstand the rigors of field deployment should those current standards be changed.

3-6. Description

The unit's TOE shows the type and quantity of DES/DISS/DMS authorized. Current authorized contents for each set are listed in the appropriate DA supply catalogs.

a. Dental Instrument and Supply Sets, Emergency Care. Every dental officer in a TOE clinical position is assigned a DISS, emergency treatment, and field. This small dental emergency kit is contained in a hand-carried medical aid bag. It contains the bare minimum of instruments and materials for simple extractions and expedient temporary restorations. Essential in this kit is the battery-operated handpiece, which allows the dental officer to open an infected tooth, prepare a cavity for temporary restoration, or section a tooth for extraction. The DISS, emergency treatment, field is intended for use when the situation does not permit the setup of the dental officer's standard equipment.

b. Dental Equipment Set, General Dentistry Field. This DES is the backbone for providing operational care. The field dental equipment associated with this DES is compact, rugged, and has a limited power demand. Every dental officer in a TOE clinical position is issued this DES.

c. Dental Support, Dental Equipment Set. This set is found in both the area support treatment platoon and the medical company (dental services). It contains items which can be shared in a clinical environment (area support treatment platoon), and is issued to each forward treatment team. It provides necessary support items that include a curing light, composite resin, electric pulp tester, sterilizer, sink, laboratory table, oxygen, and an emergency medical resuscitation kit.

d. Dental Instrument and Supply Set, Emergency Treatment Field. This small set provides basic materials for expedient denture repairs.

e. Dental Hygiene, Field, Dental Equipment Set. This set includes those instruments and materials necessary for providing preventive dentistry services by the preventive dental specialist.

f. Dental X-ray, Field, Dental Equipment Set. This set, along with its associated 70 kilovolts (kV), 7 milliamperes (mA) x-ray apparatus, provides a standard dental x-ray capability for the area support treatment platoon.

g. Prosthodontic, Dental Equipment Set. This set provides clinical and laboratory items necessary to support fixed and removable prosthodontic procedures. (This set is described in detail in a later discussion of prosthodontics in the TO.) The prosthodontics DES must be used in conjunction with the general dentistry DES.

3-7. Deployable Medical Systems/Hospital Dentistry

The DEPMEDS initiative is a joint-service response to a congressional mandate to standardize Echelons III and IV (see Glossary) hospital medical equipment throughout the TO. The DEPMEDS is managed by the Joint Readiness Clinical Advisory Board under the direction of a joint-service committee made up of a general officer representing each Service.

a. Patient-Condition Based. The configuration of both the DEPMEDS medical materiel sets (MMS) and the DMS is based on a listing of patient conditions determined from sophisticated modeling. The MMS and DMS were designed, based on standardized treatment protocols developed by panels of consultants representing each Service, to treat selected patient conditions.

b. Dental Materiel Sets. The DEPMEDS DMS provides the comprehensive dentist the capability to furnish operational care to patients.

c. Oral and Maxillofacial Surgery. Current DEPMEDS configuration requires the hospital oral surgeon to access any, or all, of three MMS and the DMS, hospital dentistry, to treat maxillofacial patients. The three MMS are—

- Operating room.
- Ear, nose, and throat augmentation.
- Central Materiel Service echelons above corps (EAC) augmentation.

Section III. AREA DENTAL SUPPORT

3-8. General

The practice of dentistry in the TO requires employment of the same fundamental skills and standards of practice as would be employed in a garrison clinic. The limitations imposed by the availability of equipment and the demands of the tactical situation require flexibility and expediency on the part of both the dentist and ancillary personnel. Dental commanders at all echelons must establish a sound quality assurance plan as described in Appendix C. The medical company (dental service) is one of the three types of dental units assigned or attached to the medical battalion (dental service) capable of providing dental service. The other two are the medical detachment (dental service) and the medical team (prosthodontics). Of the three area support dental service providers, the medical company (dental service) contains the greatest capability. Principles of employment for the medical company (dental service) are the same for those in the CZ as for those in the COMMZ. It is likely, however, that COMMZ units will be dispersed over a wider area.

3-9. Site Selection for the Dental Treatment Facility

Site selection of this clinic is based on the anticipated length of the operation, terrain, unit(s) to be supported, and guidance from the base cluster commander and/or the base cluster operations center. Other operational considerations for this DTF are the responsibility of the unit commander based on his mission and the tactical situation. These operational considerations are discussed in Chapter 4. Actual site selection is the responsibility of the officer in charge (OIC) of a DTF. Site selection considerations for a DTF are the same as those for a MTF and are contained in FM 8-10-1.

3-10. Shelter

The practice of operational dental care requires shelter from the elements and some degree of environmental control. It is an important consideration in both site selection and the type of shelter used. Dental units and

Echelon II medical units with organic dental assets are equipped with tentage and associated environmental support items authorized in the common table of allowances (CTA) of the particular unit. Tentage, however, is not the best form of shelter for the DTF. Possibilities for shelter of the DTF are shown below in their order of desirability.

a. Semipermanent Construction. Circumstances, particularly in long-term stability operations and support operations, may permit semipermanent DTF construction.

b. Buildings of Opportunity. Whenever possible, DTFs should be located in suitable buildings of opportunity. Though this may present a challenge in the DTF layout, buildings of opportunity offer obvious advantages as opposed to using tentage.

NOTE

A building of opportunity should be inspected by the supporting engineers to ensure it is structurally sound before occupation.

c. Tentage. Tentage is the most likely shelter option available for DTF location, particularly for forward-deployed DTF and during high-tempo operations. Tentage is the option most amenable to camouflage and concealment and offers the most flexibility in site selection.

d. Expedient Shelter. Expedient shelter is the most likely location for providing emergency care while on the move between locations and when dental equipment is not available. An expedient shelter may be as simple as a shaded area or the tailgate of a vehicle.

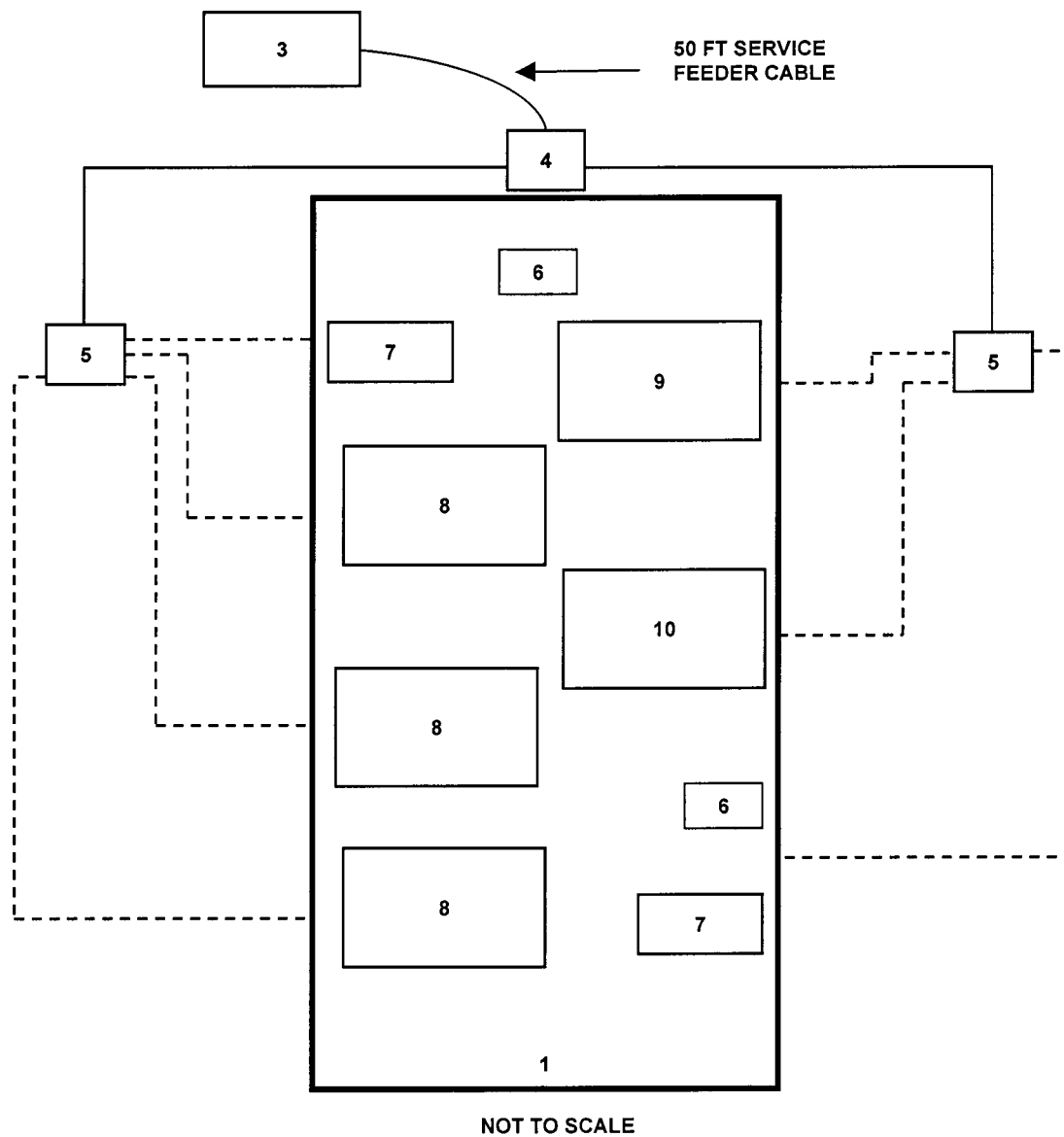
3-11. Dental Treatment Facilities Internal Design and Layout

Once a site and type of shelter have been selected for the DTF, actual layout of the facility and internal design are largely determined by the allotted space, type of terrain, anticipated duration of occupation, number of shelters to be used, power distribution capability and equipment, and staff assigned. Shown below are suggested layouts and internal designs for DTF (see Figures 3-1 through 3-4). These illustrations use the organic resources and authorized CTA tentage of the DTF.

a. Dentistry/Prosthetics Section, Medical Company (Dental Service). Figures 3-1 through 3-4 illustrate a variety of clinical operatories, dental laboratory, and x-ray layouts.

b. Forward Treatment Team, Forward Treatment Section. The forward treatment team is authorized a general-purpose, small tent and a 5 kilowatt (kW) generator. It is the same size as the x-ray tent.

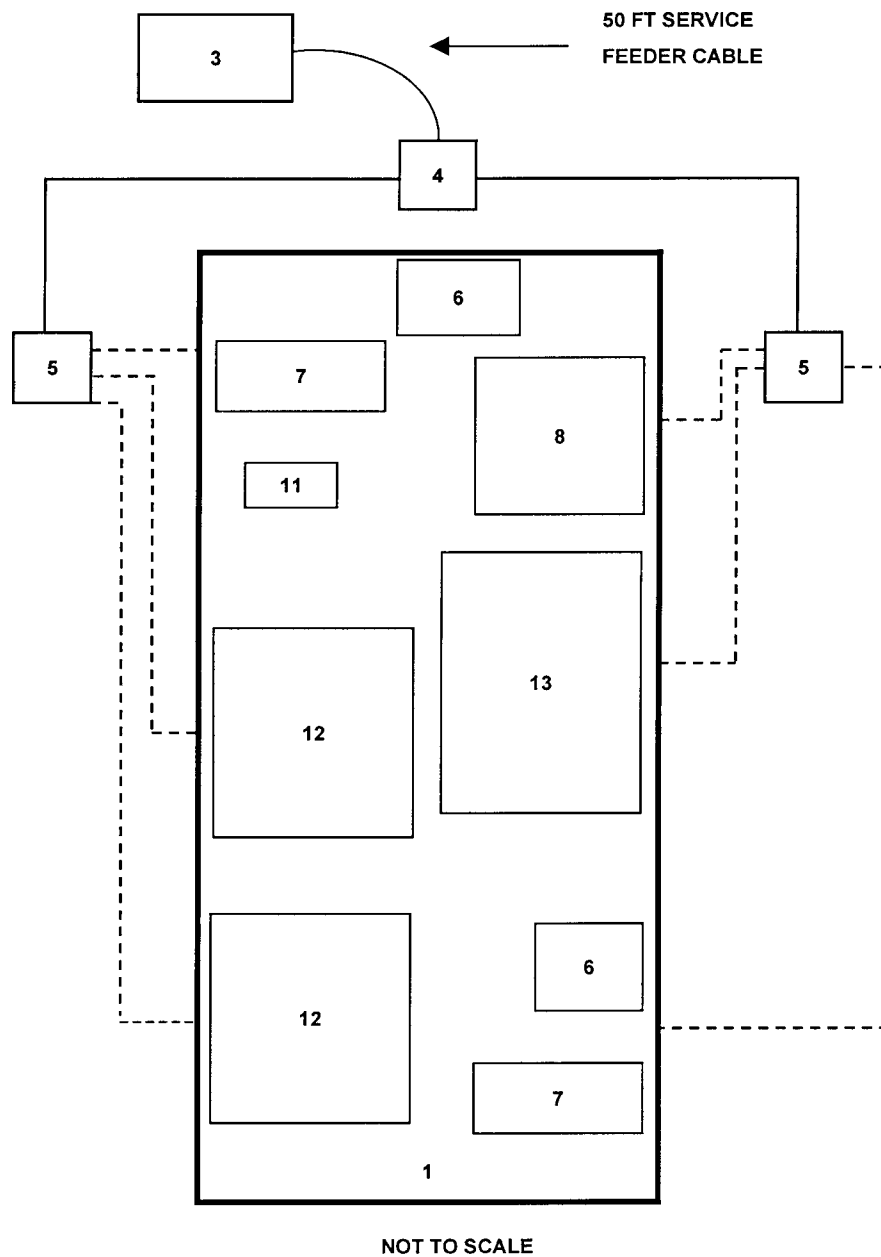
c. Echelons III and IV Hospital Dental Treatment Facilities. Layout and design of the DTF in hospitals and medical companies are dependent upon the overall plan of the parent unit.



LEGEND:

- | | | | |
|---|----------------------------|----|----------------------|
| 1 | GENERAL PURPOSE TENT (MED) | 7 | STERILIZER |
| 3 | 15 kW GENERATOR | 8 | HYGIENE OPERATOR |
| 4 | DISE M100 | 9 | PERIODONTIC OPERATOR |
| 5 | DISE M40 | 10 | ENDODONTIC OPERATOR |
| 6 | SINK | | |

Figure 3-1. General purpose, medium tent, treatment tent #1.



LEGEND:

- | | |
|------------------------------|-----------------------------------|
| 1 GENERAL PURPOSE TENT (MED) | 7 STERILIZER |
| 3 15 kW GENERATOR | 8 HYGIENE OPERATOR |
| 4 DISE M100 | 11 REFRIGERATOR |
| 5 DISE M40 | 12 GENERAL DENTIST OPERATOR |
| 6 SINK | 13 COMPREHENSIVE DENTIST OPERATOR |

Figure 3-2. General purpose, medium tent, treatment tent #2.

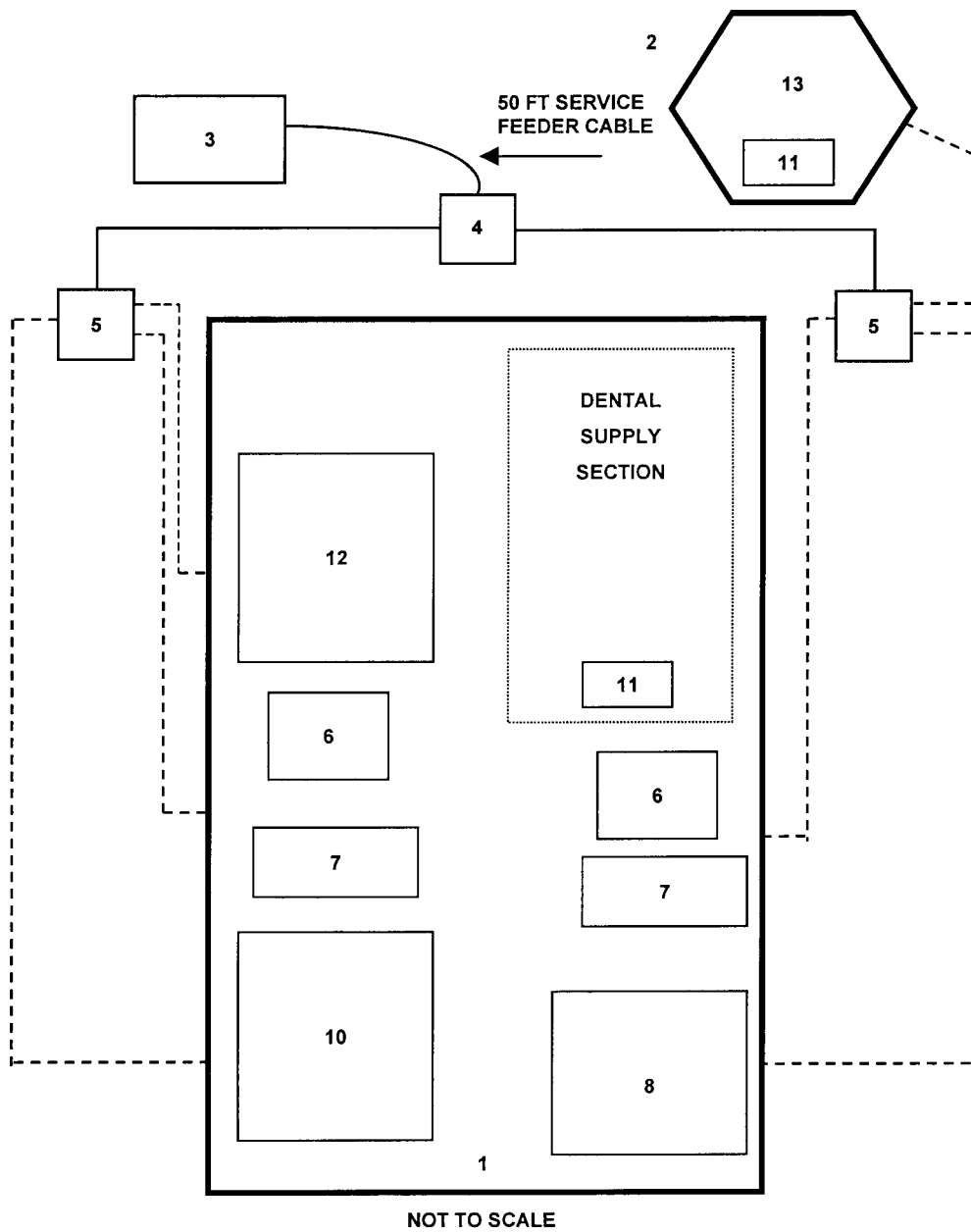
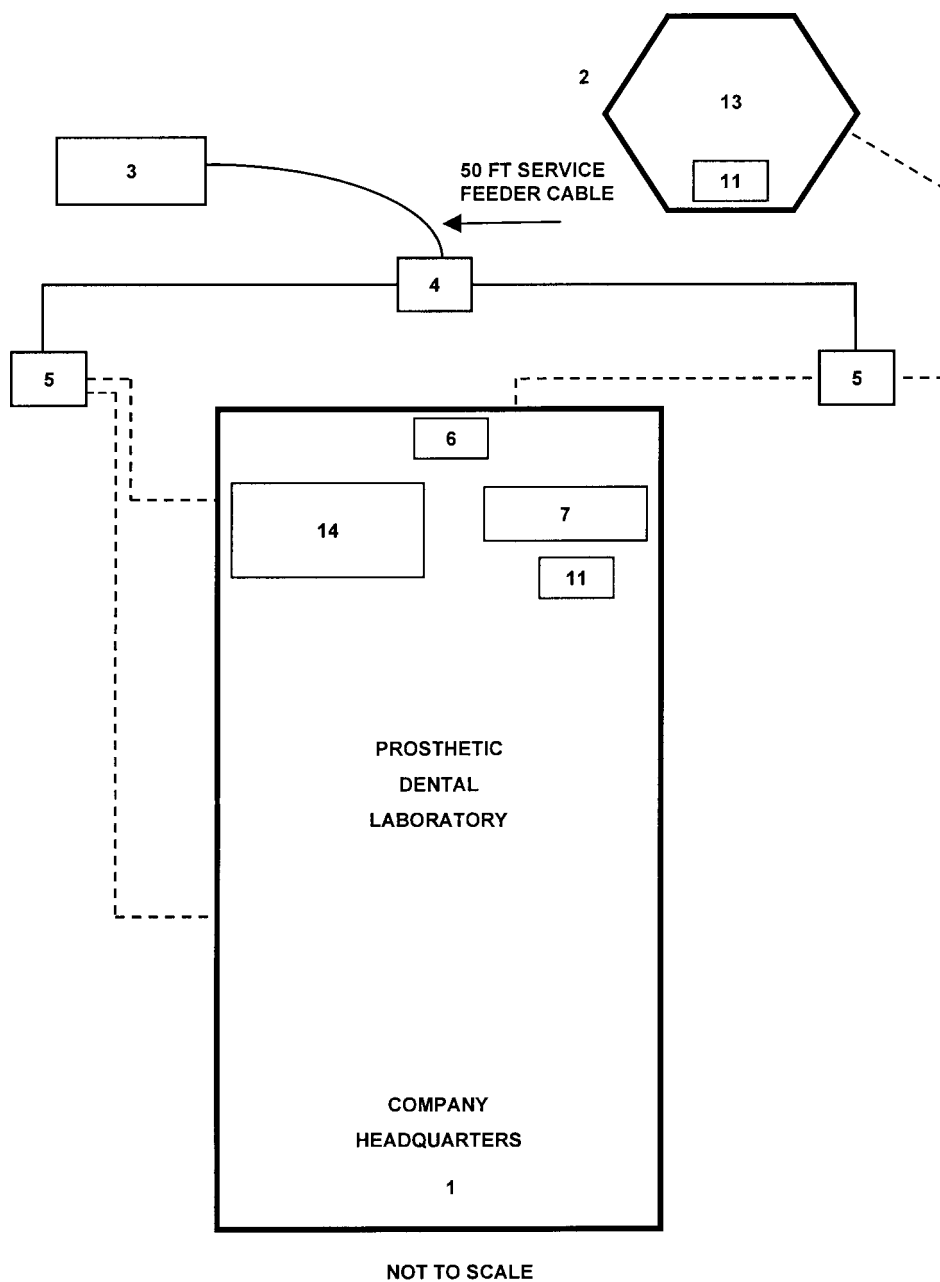


Figure 3-3. General purpose, medium tent, treatment tent #3.



LEGEND:

- | | |
|------------------------------|----------------------------|
| 1 GENERAL PURPOSE TENT (MED) | 6 SINK |
| 2 GENERAL PURPOSE TENT (SM) | 7 STERILIZER |
| 3 15 kW GENERATOR | 11 REFRIGERATOR |
| 4 DISE M100 | 13 X-RAY |
| 5 DISE M40 | 14 PROSTHODONTIST OPERATOR |

Figure 3-4. General purpose, medium tent, treatment tent #4.

Section IV. PATIENT CARE OPERATIONS

3-12. General

Once the DTF has been established, patient care operations are accomplished in much the same fashion, as they would be in a garrison dental clinic. The overall objective, as stated earlier, is to RTD the soldier as expeditiously as possible while at the same time attending to his dental needs. Efficient patient flow through the DTF will help achieve this objective.

3-13. Clinical Standing Operating Procedure

Each operational DTF should develop a clinical standing operating procedure (CSOP) (see Appendix D), separate from the unit's tactical standing operation procedures (TSOP) (see Appendix E), that establishes policy on such matters as patient care, patient flow, responsibilities, equipment operation and maintenance, safety directives, and other pertinent matters. The unit's TSOP will provide specific guidance on operational matters.

3-14. Dental Records and Reports

Maintaining complete and accurate patient treatment records and producing dental program reports are as necessary for quality dental care and resource management in the TO as they are in garrison. Technical Bulletin, Medical (TB MED) 250 and AR 40-66 provides specific guidance on completing dental records. Dental personnel will follow procedures for dental records and reports prescribed by higher headquarters policy. In the absence of an established policy unique to an operation, the procedures outlined in this manual will serve as guidance.

a. Field Medical Card, Department of Defense (DD) Form 1380. In Echelon I, the Field Medical Card (FMC) is used to record the basic patient identification data and to describe the problem requiring medical attention and the medical care provided. The FMC is made so that it can be attached to the casualty. (See FM 8-10-6 and 8-10-1 for complete details in completing the card.)

b. Dental Treatment Facility Dental Log. A logbook is maintained for each DTF. It will include the name, rank, and unit of the patient and the date and approximate time of the visit. It also includes a brief description of the reason for the visit and whether the condition was for DNBI or battle injury (BI). This log is retained for the clinic record.

c. Dental Treatment Facility Daily Dental Treatment Log. A daily dental treatment log will be maintained by the dental officer to record procedures performed and other pertinent information regarding the patient. This log provides a valuable source of data for statistical reporting.

d. Patient Record. The patient's dental record will be maintained on DA Form 3444-series and will not be deployed with the unit. It will be retained and maintained at the home station in accordance with

AR 40-66 and TB MED 250. For medicolegal reasons, complete patient records in the TO remain essential. Each patient's diagnosis and treatment, regardless of Service or country, will be accurately and completely recorded on a Standard Form (SF) 603A as a temporary record.

(1) To ensure that these temporary records are eventually combined with the permanent dental record, special care must be taken to ensure that a patient's full name, social security number, service, home station, and organization unit are entered on to the record. Organizational unit should include the designation of the company, battalion, and the unit (for example, "Company D/2d Battalion, 3rd Infantry Division").

(2) A complete description of the diagnosis and treatment includes an indication of the category of operational care—emergency or essential care as described in Chapter 1. As noted in paragraph 3-14*b* above, this description will also reflect the nature of the condition and whether it was a DNBI or BI.

(3) If SF 603A is temporarily not available, ensure that all information usually provided on the SF 603A is included on an alternative form or paper. There should be a separate SF 603A, or alternative, for each patient.

(4) All SF 603A or alternate forms will be submitted monthly and/or at the completion of the operation or exercise to the dental surgeon. If a record must be retained beyond the end of the month for continuity of care, it will be forwarded with the following month's submission.

(5) The SF 603A (or other temporary patient records) is *not* to be returned directly to the home station. They will be transferred to the theater, area, exercise, or task force/ division/corps surgeon. The dental surgeon will arrange for transfer to permanent dental records at the home station after data are collected from them.

e. Daily Dental Unit Status Report. A brief summary of the current dental situation is submitted daily through command and dental technical channels. The report serves to keep C2 channels up-to-date on the status of dental operations and problems concerning personnel, equipment, supply, facilities, and other activities. For additional information, refer to Section IV of Chapter 5.

f. Quarterly Dental Activities Report. A summary of the unit DTF, hospital DTF, or dental support unit activities will be submitted by the 15th of the month following each fiscal quarter of the year by the division/corps surgeon. For example, by 15 October, each hospital DTF, unit-support (for example, divisional and corps) DTF, and each area support dental unit will submit a report covering the period 1 July through 30 September. If participation in an operation or exercise ends before the end of a quarter, the final Dental Activities Report will be due 15 days after return to the home station. The Dental Activities Report will include—

- (1) Dates of report period.
- (2) Name and location of unit or DTF.
 - Description of facilities.
 - Dental unit or DTF movement during report period.

(3) Personnel (include name, rank, and area of concentration [AOC], for officer or MOS for all enlisted personnel).

- Identity OIC and noncommissioned officer in charge (NCOIC).
- Date of arrival and departure of all personnel.
- Awards, honors, and achievements.

(4) Dental and organizational equipment for deficiencies, excesses, problems, and recommendations.

(5) Supply and maintenance, to include deficiencies, excesses, problems, and recommendations.

(6) Name of units supported, to include date support began and date support terminated.

(7) Activities and programs (for example, humanitarian assistance, preventive programs, professional and unit training, and distinguished visitors).

(8) Suggestions for improvement.

The Dental Activities Report is intended to keep higher levels informed of the status of dental resources and activities. It is also an opportunity for dental providers to let problems and solutions be known. After a complete initial report is submitted, subsequent reports need not repeat information that has not changed. Unless changes are indicated on subsequent reports, it will be assumed that data in the previous reports are still valid and serve as a cumulative record of dental service for that unit.

g. Health Record-Dental, Daily Dental Unit Status Report, and Quarterly Dental Activities Report. These reports are submitted through the command and through the next higher level's dental surgeon to the Army Service Component Command or theater dental surgeon. The DTF dental logistics is retained at the dental facility and is available for audit if needed. Each MEDCOM and dental command surgeon extract data and information needed for their immediate resource management and professional policy needs before forwarding to the next higher level. Summarizing statistics for the Daily Dental Activities Report is the only numerical manipulation required at the DTF level. Dental surgeons and dental commanders will extract further information they require from the Health Record-Dental and the Quarterly Dental Activities Report.

3-15. Preventive Dentistry

Military preventive dentistry incorporates primary, secondary, and tertiary preventive measures taken to reduce or eliminate oral conditions that decrease a soldier's fitness to perform his mission and cause absence from duty. The combination of dental care measures for all soldiers is described under a preventive dentistry umbrella known as the Dental Combat Effectiveness Program (DCEP). Before operational

deployment, these preventive dentistry measures include the Basic Combat Training/Advanced Individual Training Dental Program (a program to treat Class 3 patients), the Soldier Readiness Program (described in AR 600-8-101), and the preventive dentistry programs described in AR 40-35. During DSS to military operations, the DCEP measures include—

- Field management of the category of dental care (see paragraph 1-4).
- Commander information on the dental fitness profile of his unit (see AR 40-35).
- The Field Oral Hygiene Information Program (see paragraph 3-15a below).
- The Dental Combat Effectiveness Monitoring Program (see paragraph 3-15c below).

a. Field Oral Hygiene Information Program. All processing locations for deployment of troops to a TO will provide oral health information specific to the geographic area and conditions of the operational environment. In addition, it is vitally important to provide oral health information in the TO at every opportunity. When appropriate, both group and individual counseling should be used. Concepts to be covered include the importance of oral hygiene to combat fitness; the use of fluoridated toothpaste; alternative methods of hygiene in the absence of garrison-type facilities; and procedures to seek dental services in the TO. Soldiers should also be informed that dental floss, toothbrush, and fluoridated toothpaste are available in the Ration Supplement, Sundries Pack, Type I. These and other oral hygiene aids are also available in the post exchange.

b. Prophylaxis Treatment. Instruments and materials for dental prophylaxis treatment are located in the dental hygiene, general dentistry, and endodontic and periodontal DES. A sonic prophylaxis handpiece connects to the dental treatment unit.

c. Dental Combat Effectiveness Program. The effectiveness of the DCEP depends on all elements described above. The desired outcome is to reduce the degradation of combat effectiveness from dental discomfort and absence from duty station. The outcome measurement of DCEP is the unit or area dental emergency rate. For it to be meaningful, there are three elements to consider in calculating the emergency rate—number of emergencies, number of troops supported, and length of time supported. The emergency rate is normally expressed as—

“Dental Emergencies/1000 Troops/Year”

For the purposes of managing the operational fitness of their troops, unit commanders have a need to know the dental emergency rate; they also have a need for advice from the dental surgeon on the corrective actions required. Based on studies of previous military operations by ground forces, the following can be used for reference purposes in discussing emergency rates:

- Units with optimal oral health—75/1000/year.
- Units with adequate oral health—150/1000/year.
- Units with oral health that may degrade operational effectiveness—300/1000/year.

3-16. Infection Control

Infection control is a critical requirement in a field environment. The demands for infection control increases under field conditions. Expediency and compromise do not justify potential iatrogenic inoculation with a disease such as hepatitis, which can make a soldier combat ineffective for a long period of time. Field sanitation in the DTF area is an important adjunct to infection control and is covered in Chapter 4. Technical Bulletin MED 266 provides specific guidance on infection control, also see FM 21-10 and 21-10-1.

3-17. Patient and Care Provider Protection

Universal precautions must be used by all dental personnel. Capability for barrier protection for prevention of cross-contamination is included to varying degrees in each treatment DES. In the DISS, emergency treatment, barrier protection is limited to gloves, mask, and eye protection. The larger DES have much greater capability, to include gloves, masks, eye protection, clinical gowns, and plastic aprons for the care providers. Rubber dam armamentarium, eye protection, and towels and napkins are provided for the patient. A variety of disinfection and heat sterilization capabilities are also included in the larger sets.

3-18. Waste Management

The accumulation and disposal of waste of all types is a major problem on the battlefield. Proper handling and disposal of waste is required to protect the force and the environment and to fulfill agreements with the host nation. In general terms, the unit generating the waste is responsible for its collection and disposal. However, assistance in the physical removal and disposal is normally available through the supporting engineer unit, the preventive medicine (PVNTMED) team, or the local MTF. The types of waste generated by dental treatment teams are general, hazardous and medical waste. Refer to FM 8-10-1 for additional information on the handling of human, medical, and wastewater.

3-19. Radiology Operations

Radiology operations are an integral part of dental treatment. Capability for dental radiography is found in both the sustaining and the maintaining care DES. Radiology operations pose a significant safety hazard and are rigidly regulated. Safety is the greatest consideration in the operation and the location of radiology operations within the DTF.

a. Capabilities. Radiographs are an important tool in diagnosis. The standard dental radiology unit is currently found in the medical company (dental service) and forward treatment sections. It has a tube voltage of 70 kV and a tube current of 7 mA. Used with the developer found in the field DES, radiology, the unit is capable of producing a full range of intraoral radiographs. In addition, the dental x-ray machine can also be used to expose medical films if required film, film holder, and developing capability are available.

b. Clinical Operation. Tables of organization and equipment provide dedicated dental specialists for radiology operations in the dentistry/prosthetic and general dentistry sections of the medical company (dental service) and the general dentistry section of the medical detachment (dental service). In the dental modules, radiology is an additional responsibility of the assigned dental specialist. Dental specialists receive training in x-ray techniques during their MOS training; however, instructions that come with the x-ray machine should be readily available and followed accordingly. Within the larger DTF, the x-ray machine is located in an isolated area at least 50 feet from the rest of the facility, with the beam aimed away from the DTF and other adjacent populated areas. Use of a patient apron and a lead shield is mandatory. Manufacturer's guidelines for the care and handling of radiographs and developing chemicals should be carefully followed and made a part of the standing operating procedure (SOP).

Section V. PROSTHODONTIC CARE OPERATIONS

3-20. General

There will be patients in the TO who require prosthodontic treatment. An edentulous patient who has either lost or broken his denture, or a patient who has an unserviceable fixed prosthesis causing pain and discomfort, is as much a dental casualty as a patient with a classic toothache. For this reason, varying degrees of capability for both fixed and removable prosthodontic treatment are incorporated into the DTF.

3-21. Location of Prosthodontic Capability

With the exception of the dental officer providing emergency care using only the DISS, emergency care, all DTF within the TO have some capability for prosthodontic care.

a. The DES organic to each dental team has material for temporary fixed prosthodontic coverage and cementation. Additionally, each forward treatment section of the medical company (dental service) is equipped with an emergency denture repair kit for prosthodontic repairs.

b. Capability for fixed and removable prosthodontics is found in the medical company (dental service) and Echelon III and IV hospitals.

3-22. Clinical and Laboratory Operations

a. Clinical Operations. The medical team (prosthodontics) is capable of providing a wide range of fixed and removable prosthodontic services. The prosthodontist has access to a DES, general dentistry and a DES, prosthodontics.

(1) Primary fixed prosthodontic procedures, which can be accomplished with the material available to the prosthodontist, include—

- Metal and porcelain-fused metal crowns.
- Fixed partial dentures.
- Prefabricated and cast post and cores.
- Provisional restorations.
- Fixed prosthodontic repairs.

(2) Primary removable prosthodontic procedures include—

- Conventional and immediate complete dentures.
- Resin and resin/metal removable partial dentures.
- Relining and rebasing.
- A wide range of removable prosthodontic repairs.

b. Laboratory Operations. The prosthetic section of the medical company (dental service) and medical team (prosthodontic) both have organic dental laboratory specialists who directly support the prosthodontist and the comprehensive dentists. Necessary dental materials and laboratory equipment are found in the DES, prosthodontic. The key to the TO dental laboratory concept is the use of the Army Post Office System for mailing patient requirements back to CONUS area dental laboratories (ADL) for fabrication. Theater laboratory capability is limited to those procedures that must be performed locally for expediency, or those that are not suitable for mailing.

(1) These procedures involve—

- Wax records and bases.
- Impression procedures and cast fabrication.
- Stain and glazing.
- Immediate transitional resin dentures.
- Die fabrication and trimming.
- Relining/rebasing.
- Repairs.

(2) Use of the CONUS ADL for resource intensive laboratory procedures provides great savings in field equipment/weight and contributes to the overall mobility of the unit. Procedures such as crown and fixed partial denture fabrication and fabrication of metal frameworks for removable partial dentures are not suited to field units and are best accomplished in CONUS ADL.

CHAPTER 4

DENTAL SERVICE UNIT OPERATIONS**Section I. INTRODUCTION****4-1. General**

The medical company (dental service) provides operational care consisting of emergency and essential care within the TO on an area support basis. Chapters 4 and 5 focus on these operations. Dental service support is an integral part of CHS, which in turn is part of CSS. As with CHS and CSS, DSS operations are conducted in accordance with the Army's current doctrine for MF2K.

4-2. Medical Force 2000 Doctrine

Field Manuals 8-42, 8-55 and 8-10 is compatible with MF2K doctrine and provides the basis for the dental commander's operational considerations.

a. Operational Continuum. The operational continuum encompasses the variety of conditions and ranges within each of the threat environments in which the US military traditionally operates. The full range of military operations includes all environments—from stability operations and support operations to war; there may be no precise distinction between where one state ends and another begins. Dental involvement can be expected in all instances of military involvement. Dental operations within these operational areas are covered separately in Chapter 7. Refer to FM 8-42 for additional information on the sustainment of forces in stability operations and support operations. All of the demands mentioned above come in addition to the constant requirement for the Army to maintain combat readiness in all forward-deployed and CONUS-based units.

b. Medical Force 2000. The tenets of MF2K apply equally to dental operations. As an element of CSS, dental operations must complement the maneuver commander's plan at all levels. It is imperative, therefore, that dental commanders understand the overall OPLAN and maintain situational awareness of the tactical operations.

c. Depth. The dental service plan will provide dental support throughout the battlefield.

d. Agility. The medical company (dental service) should be capable of responding to a rapidly changing tactical situation.

e. Synchronization. Dental support should complement the CHS plan and the tactical plan as part of an overall force unity of effort.

4-3. Medical Threat

Threat analysis is a basic step in plan formulation and subsequent execution. Of particular importance to the dental commander is analysis of the medical threat. The medical threat is the composite of all ongoing or

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potential enemy actions and environmental conditions that reduce the performance effectiveness of the soldier. Enemy combat operations that disrupt or threaten the survival of dental units are a direct threat to dental operations; however, this threat is not considered part of the medical threat.

a. Elements of the Medical Threat. These categories include—

- Environmental injuries and conditions. This includes heat and cold injuries resulting from inadequate acclimation to the AO and inadequate clothing and equipment for the environmental conditions. This may also include occupational hazards such as carbon monoxide, toxic industrial chemicals, and noise.
- Endemic and epidemic diseases in the AO. This includes diseases of military significance, diarrheal diseases caused by drinking contaminated or impure water (not adequately treated), eating contaminated foods, and not practicing good individual and unit PVNTMED measures. These diseases may also be the result of disease transmission by arthropod vectors.
- Diseases and injuries caused by contact with wild animals, domesticated animals, reptiles, and poisonous or toxic plants.
- Diseases and injuries caused by physical or mental unfitness. These conditions may occur from continuous operations, inadequate diet, and mental stressors.
- Diseases and injuries resulting from exposure to NBC agents to include biological warfare and chemical warfare agents.

b. Oral Health Threat. The oral health threat results from chronic disease that is endemic in American service members. Acute narcotizing ulcerative gingivitis, acute pericoronitis, and periodontal abscesses are known to exacerbate during periods of fatigue, nutritional deficiencies, poor oral hygiene, and physical and psychological stress. Milder gingival and periodontal disease may also increase in incidence and severity. The chronic nature of dental caries predicts that troops who have deployed initially in an orally fit condition will deteriorate if field oral hygiene is not practiced and if sustaining and maintaining dental care is not provided. Oral and maxillofacial injuries from both battle and nonbattle cause an increase in operational settings. All oral infections can advance to life-threatening oropharyngeal fascial space infection or cavernous sinus thrombosis if inappropriately managed.

4-4. Operational Tasks

Operational tasks common to all dental units which must be addressed to accomplish the dental service mission regardless of the TO and tactical situation, are—

- *Understanding situational awareness information.* (As the basis for making a decision.) Simply, it is understanding oneself, the enemy, and the terrain or environment and mission.

- *Understanding the operational and political requirements—mission unique requirements.* Advising the commander on capabilities, limitations, requirements, resource availability, and readiness status of the area of interest.

- *Preparing, updating, and maintaining estimates.* Assist the commander in decision making.
- *Preparing plans and orders.* Identify specified and implied tasks to support the plan. (See FM 101-5.)

- *Conducting training.* The dental planner must assess training requirements within his respective area of interest. The planner must determine the amount and type of training and requirements for evaluating the training and then be responsible for planning and supervising this training within the dental command.

- *Performing risk management.* The dental planner will integrate risk management into the planning and execution training and operational missions. (See Appendix J, FM 101-5.)

- *Mobilizing during a crisis.* All US military units have preexisting plans for use in the event of mobilization. Mobilization requires extensive and comprehensive planning to ensure that it can be accomplished in an efficient and timely manner.

- *Predeployment activities.* Predeployment activities is the first of five deployment phases. The Army prepares its units for crisis-action and force-projection missions based on the operational requirements. Dental commanders must conduct necessary deployment and individual and collective training to attain the desired mission capability in the shortest possible time consistent with the planned deployment. (See FM 100-17.)

- *Deployment.* Consists of five phases. Predeployment activities being Phase I and discussed above; and Phase II-movement to the port of embarkation; Phase III-strategic lift; Phase IV theater base reception; and Phase V-theater onward movement which round out the process of deploying soldiers and equipment to carry out the operation. Each of these phases is very important in of themselves. Key to the success of any operation is the sustainment of the units being deployed. Key to the whole process is planning, coordination and execution of the plan.

- *Reconstitution and redeployment.* At the completion of operational requirements, forces move back to designated tactical assembly areas. Accountability of equipment and personnel and unit integrity must be a maximum concern during this Phase I of redeployment; repacking and loading containers under US Customs and US Department of Agriculture supervision. The remaining steps are: Phase II-movement to redeployment assembly areas; Phase III-movement to port of embarkation; Phase IV-strategic lift; Phase V-reception at port of debarkation; and Phase VI-onward movement from port of debarkation. Complete discussion of each of these phases is found in FM 100-17.

These tasks in themselves do not constitute a mission essential task list (METL), but should be considered in METL development. These general tasks are the basis for the subsequent sections in this chapter.

4-5. Standing Operating Procedures

a. General. A SOP is a list of standing procedures that are unique to the organization. The SOP will vary from unit to unit based on mission, guidance from higher headquarters, and other variables. It facilitates and expedites operations by simplifying combat orders. Field Manual 101-5 provides general guidance on SOP. There is no specified format for SOP preparation due to the wide range of command guidance and variable factors. In some cases, however, higher headquarters may prescribe the format for the SOP.

b. Dental Unit Standing Operating Procedures. Dental units should have both a CSOP (see Appendix D) and a TSOP (see Appendix E).

- *Clinical standing operating procedure.* The need for each DTF within the unit to develop a CSOP is discussed in Chapter 3 and further explained in Appendix D.

- *Tactical standing operating procedure.* The TSOP should cover the entire spectrum of collective unit operations with focus on those matters pertaining to unit movement, sustainment, and survival. The basic reference for the development of a unit TSOP should be the TSOP of the higher headquarters. (See Appendix E.) The TSOP of the medical company (dental service) should reflect the guidance contained in the TSOP of the parent medical group, the medical brigade, and/or the MEDCOM.

Section II. DENTAL SERVICE SUPPORT PLANNING

4-6. General

Dental service support planning is accomplished at all echelons of medical care within the dental command. Dental commanders' plan for the implementation of guidance provided by higher-level staff dental surgeons in the overall operation planning process. Field Manuals 8-42, 8-55, and 101-5 provide specific guidance on the military decision-making process. This process leads to rehearsal and the execution and assessment of the mission. (Refer to FM 101-5 for a detailed discussion on the development of OPLANs and OPORDs as ready references for all dental planning.)

4-7. Planning Process

The planning process is dynamic because plans must be constantly revised in response to changing situations. The planning process outlined in FM 8-55 is applicable to DSS planning and subsequent operations.

4-8. Types of Plans and Orders

There are five types of military plans—OPLANs (the OPLAN becomes the OPORD when the conditions of execution occur and the execution time is determined), the service support plan (SSPLAN), the supporting

plan, the contingency plan, and the concept plan. The two types of plans most likely to be prepared by dental units are the OPLAN and the SSPLAN. All plans become orders. There are two general classes of orders—administrative and combat.

a. Administration orders cover normal administration operations in garrison or in the field such as general, specific, and memorandum orders, court-martial orders bulletins, circulars, and other memoranda.

b. Combat orders deal with the strategic, operational, or tactical operations and their service support, to include CSS. The combat orders most likely to be used by dental units are the OPORD. Combat orders also include a service support order which provides the plan for service support of operations including administrative movements; a movement order (a stand-alone order that facilitates an uncommitted unit's movement); a warning order (WARNO) (a preliminary notice of an order or action that is to follow); and a fragmentary order which provides timely changes of existing orders to subordinate and supporting commanders while providing notification to higher and adjacent commands.

4-9. Deputy Commander, Dental Service, Corps Medical Command

The primary responsibilities of the deputy commander, dental services includes developing the overall DSS plan for the command, monitoring dental unit readiness and capability within the command, and providing guidance to dental units subordinate to the command. Field Manuals 8-55 and FM 8-42 provide extensive information on the dental role in the planning process. The first step in the planning process is to prepare the dental estimate of the situation as part of the CHS estimate. Working with the command surgeon, the next step is to prepare the dental portion of the CHS OPLAN. Finally, working with the corps MEDCOM, the Assistant Chief of Staff for Security, Plans, and Operations will develop the corps MEDCOM OPLAN/OPORD, which in turn provides guidance to subordinate units for preparation of their plans and orders.

4-10. Formats

Generally, formats for most plans and orders follow the recommended examples provided in FMs 8-55, 8-42, and 101-5, unless higher headquarters provides specific guidance on format. Formats should be standardized within the unit as a matter of TSOP. Time and METT-TC may dictate expediency and the need for an improvised format. In all cases, however, the basic principles for preparing a plan/order should be applied.

Section III. UNIT MOVEMENTS

4-11. General

The principles of CHS (conformity, continuity, control, proximity, flexibility, and mobility) place a premium on the ability of a unit to move on the battlefield. Dental units deploying from outside the TO require

proficiency in all means of strategic conveyance. Unit movements and movement by elements within the unit are complex and require detailed planning and coordination as well as effective training. Procedures for unit movements must be detailed in the unit TSOP and unit movement plans. These procedures are supplemented with a formal movement order for each operation. Movements within the TO can be classified as either tactical or administrative.

4-12. Strategic Movements

Strategic mobility may involve movement by air, sea, rail, or land. Each type of movement requires special skills and training. The unit's field executive officer is generally designated as the unit movement officer and must be school trained and certified along with a number of enlisted personnel. Training must be accomplished prior to notification. Unit movement personnel supervise the loading of the unit's vehicles and equipment as directed by the loadmaster of the particular conveyance. Strategic movements by dental units are usually a part of a larger effort by the medical group, medical brigade, or MEDCOM and will be primarily directed by those headquarters. Dental units should prepare individual movement plans and orders consistent with the guidance provided by the higher headquarters.

4-13. Movements Within the Theater

A tactical road march is the most likely means of movement, but units must be trained in other methods, based on the situations they are likely to encounter. With limited organic transportation assets, detailed and prioritized load plans are essential to quickly establish dental services upon arrival at the planned destination. Dental units and their subordinate elements may well be expected to conduct airmobile operations using sling-load techniques that may require special training and certification. A tactical airlift of equipment is anticipated as the depth of the battlefield increases. An increased reliance on innovative methods of movement is also foreseen in the future, placing more emphasis on lightweight equipment, well-trained and conditioned soldiers, and flexibility on the part of the commander. A commander will train and certify his unit in preparation for all movement options.

4-14. Convoy Operations

The most likely transportation platforms for dental units will be by organic vehicles. Tactical road marches are demanding operations and tactical road marches may be conducted over all types of terrain, to include unimproved roads and cross-country. Environmental conditions and the enemy threat, particularly NBC and air, are vital considerations. (See FM 8-10-1.)

4-15. Unit Movement Plans

Unit movement plans contain up-to-date logistical data summarizing transportation requirements, priorities, and limiting factors to the unit's movement. The contents of the plan may vary depending on the mission of the unit and guidance from higher headquarters. As a minimum, the unit movement plan should contain the following:

- a.* A detailed listing of personal baggage, organizational equipment, and expendable and nonexpendable supplies in a shipping configuration.
- b.* The officer in charge of movement implements the TSOP (see Appendix E) for the movement staff, advance parties, quartering parties, and rear detachments.
- c.* Procedures to be followed at the beginning of the movement, en route, and at the destination.
- d.* Unit loading plans.

4-16. Procedures for Unit Movement

The unit TSOP should include such unit movement details as—

- Composition of march units.
- Combat health support requirements.
- Duties of the advance party, reconnaissance element, and rear party.
- Control and communication methods.
- Convoy security.
- March speed.
- Accident reporting procedures.
- Refueling, maintenance, and field feeding procedures.
- Personnel and equipment load of organic vehicles.
- Conduct of periodic rehearsals.
- Reaction to enemy action.
- Procedures at the destination.

The TSOP must be flexible enough to allow accommodation of the current mission, yet thorough enough to allow efficient and predictable action.

4-17. Unit Load Plans

Unit load plans include all individually prepared documents which, taken together, present in detail all instructions for the movement of personnel and the loading of equipment. Load plans are prepared for each

of the unit's organic vehicles and should be consistent with the sectional organization of the unit to allow flexibility and maintain sectional integrity. They should also be individually configured to expedite the setup of the unit/section facilities. Load plans are prepared according to the unit TSOP or the commander's guidance. A separate set of load plans should be maintained for air movements involving special handling. Load plans are the responsibility of the unit movement officer and should be maintained by the unit, the section, and the individual responsible for each vehicle.

Section IV. PROVISION OF DENTAL SERVICES

4-18. General

The single most important function of DSS units is, of course, to provide dental care. The dental service units will provide this service within its AOR in a manner which best accomplishes this overall mission. Field dentistry is covered extensively in Chapter 3. This chapter looks at dentistry and associated dental services at an operational level.

4-19. Patient Population

a. Eligible Beneficiaries. Army medical and dental care is provided to US Army forces deployed in the TO and members of the sister Services. This care, as determined by the appropriate authority (based on the recommendation of the command surgeon and in conjunction with legal authority), may also be provided to other eligible beneficiaries (depending upon the type of operation). This list could include—

- Host nation indigenous populations.
- Nongovernment organizations.
- Private volunteer organizations.
- United Nations forces and personnel.
- Civilian employees.
- Contract employees.
- United States service members and allied forces.
- Refugees and displaced persons.

Priority of treatment is based on the patient's medical/dental condition, availability of resources, negotiated agreements, and applicable laws and conventions. Army Regulation 40-3 provides guidance on eligibility for care; however, other guidance may be provided in the OPORD of higher headquarters.

b. Geneva Conventions Provision for Prisoners of War. The Geneva Conventions require that health care be given to friend and foe (for example, EPW) alike without distinction. Therefore, dental units may be charged with the mission of providing emergency dental treatment to EPW. (Refer to FM 8-10 for additional information.)

c. Stability Operations and Support Operations. Dental operations are generally associated with nation assistance and other aspects within the range of military operations that are covered extensively in Chapter 7. However, there will be times in more conventional conflicts when dental civic action operations may be called for, particularly as part of overall postconflict civil affairs operations. (See FM 8-42 for additional information on these subjects.)

4-20. Dental Service-Related Missions

Dental units will participate in other nondental missions that support the overall CHS mission.

a. Additional Wartime Role. The most important of these adjunctive missions is known as the additional wartime role, which deals primarily with the augmentation of medical assets during mass casualty operations. Chapter 8 addresses the additional wartime role in detail, both individual and unit level.

b. Veterinary Support. Government-owned animals, particularly extremely valuable military working dogs (MWD), may be used extensively in a TO. The MWD are subject to dental injuries, particularly fractured teeth. Dental officers may be called upon to assist the veterinary staff in the treatment of these injuries and restoration of the involved teeth.

Section V. SUSTAINMENT OF DENTAL OPERATIONS

4-21. General

Sustainment of dental operations is a critical aspect of mission accomplishment. The principles of CHS (mentioned in paragraph 4-11) place a premium on mobility and flexibility, thus requiring careful attention to logistical concerns to ensure they do not encumber the mission. Sustainment issues generally fall into the category of service support including—

- Personnel service support.
- Combat health support, to include CHL operations.
- Morale and welfare activities.
- Chaplain services.
- Postal services.

- Unit administration.
- Classes of supply, I through X.
- Finance services.
- Legal services.
- Maintenance.

Relative to their size and capability, dental operations consume power, fuel, water, and Classes I-X supplies and equipment. Careful planning for these products is a must for sustainment. Chapter 10 discusses service and support in detail; however, some general considerations for planning purposes are addressed here.

4-22. Sustainment Planning

Sustainment planning must be incorporated in the unit's OPLAN or OPORD. Sustainment issues are usually included in a service support annex to the basic plan or order, or may be included in paragraph 4, Service Support, of the basic plan. Sustainment issues should also be addressed in the unit's TSOP, and for those items that pertain to DTF operations, in the CSOP.

4-23. Support Arrangements

Dental units have varying degrees of sustainment self-sufficiency; however, all depend on other units for some of their support.

a. Support Arrangements. Support arrangements are generally directed in the OPLAN and OPORD of the higher headquarters. They are generally in the form of an attachment specified by the parent unit. Other variations include DS from the headquarters company of the parent C2 organization, collocation with informal support arrangements, and, less frequently, as part of a consolidation into a composite CHS task force. In addition to sustainment issues, survival issues, such as collective security, must be addressed with the host unit. Survival issues are discussed in Section VI of this chapter.

b. Types of Supporting Units. Combat health support units providing medical or dental treatment are the most desirable units for attachment of dental units or their subordinate elements. The dental unit is dependent upon—

- Appropriate elements of the theater MEDCOM, the corps MEDCOM, Medical group, and the medical brigade for CHS, administrative, technical, and logistic support.
- Appropriate elements of the corps for legal, finance, personnel and administrative services, food service, water, resupply of nonmedical classes of supplies, supplemental transportation support, religious services, laundry, bath, and clothing exchange services, graves registration, and security of treated EPW.

When treatment teams are further attached, these teams will be dependent upon appropriate elements of the division for legal, finance, personnel, and administrative services; food service and water; Class VIII supplies and resupply of nonmedical classes of supplies; supplemental transportation support; maintenance for vehicles, generators, and communications equipment; religious services; CHS, patient evacuation; laundry, bath, and clothing exchange services; patient decontamination; graves registration; and security of treated EPW.

Section VI. SURVIVAL IN THE COMBAT ENVIRONMENT

4-24. General

The threat to survival is broad-based and affects a unit, both individually and collectively. The threat can be divided into general categories—the environment itself, enemy action, and the concomitant stresses generated.

4-25. Threat from Enemy or Others

The threat to dental units includes—

- Deliberate attack on dental units or collateral damage from attacks upon legitimate targets.
- Direct and indirect ground fires.
- Air attack by fixed- and rotary-wing aircraft and guided missiles.
- Special operations.
- Attacks by irregular combatants (terrorists and insurgents).
- Weapons of mass destruction.
- Accidental nuclear release.
- Biological warfare.
- Chemical warfare.
- High explosives.
- Toxic chemicals.

Munitions may include conventional ammunition, incendiary munitions, and NBC. Dental units are an unlikely direct target of enemy action; however, they are still at risk based on their location in relation to more lucrative targets. Dental units are perhaps at greatest risk when moving, particularly along main supply routes (MSR). Dental personnel are armed only with defensive weapons. They have a limited capability for active defense and must rely on passive defense measures and collective security arrangements.

a. Nuclear, Biological, and Chemical Threat. Dental operations in an NBC threat area pose problems for unit survival and patient care operations. Chapter 9 deals specifically with dental operations in an NBC environment. (See also FM 8-10-7.)

b. Conventional Threat. Dental unit reaction to a conventional threat relies primarily on individual and collective passive security measures such as field fortifications and barriers, as well as vigilance and access to intelligence and warning systems.

c. Tactical Standing Operating Procedure. Personnel and collective unit defensive action to enemy actions should be addressed in the TSOP and drilled as a matter of course during exercises and actual operations.

4-26. The Effects of the Law of Land Warfare on Dental Service Support

The Geneva Convention for the Amelioration of the Condition of the Wounded and Sick (GWS) offers protection to units and personnel involved in providing dental services, but with certain obligations. The Convention is very detailed and contains many provisions that pertain directly to the CHS mission. In-depth discussions of the provisions pertaining to CHS operations are provided in FMs 8-10 and 27-10 and are good sources of information for the effects of the Laws of Land Warfare on CHS. Only the major applications to dental units are discussed in this section.

a. Protection of Dental Patients. Dental patients fall into the category of wounded and sick and are protected under the provisions of the GWS.

b. Protection and Identification of Dental Personnel. The GWS provide special protection for medical/dental personnel exclusively engaged in the providing of CHS. This includes both protection from intentional attack and the requirement for special handling in the form of retained person status in case of capture. In order for dental personnel to be afforded this protection, they must be identifiable as medical personnel by the enemy and they must be “*exclusively engaged in the search for, or the collection, transport, and treatment of the wounded or sick or in the prevention of disease, and staff exclusively engaged in the administration of medical units and establishments.*” For identification purposes, identification is facilitated by medical personnel wearing an armband bearing the distinctive emblem (a red cross on a white background), or by their employment in a medical unit, establishment, or vehicles that displays the distinctive emblem.

- The GWS does not itself prohibit the use of medical/dental personnel in perimeter defense of nonmedical units such as unit trains, logistics areas, or base clusters under overall security defense plans, but the policy of the US Army is that protected personnel will not be used for this purpose.

- Adherence to this policy should avoid any issues regarding their status under the GWS due to a temporary change in their role from noncombatant to combatant. Medical personnel may guard their own unit without any concurrent loss of their protected status.

This paragraph implements STANAG 2931

c. Protection and Identification of Dental Treatment Facilities. Dental facilities are also protected from intentional attack if they are identifiable as such by an enemy in a combat environment. Normally this is facilitated by dental units or establishments flying a white flag with the distinctive emblem and by marking buildings with the distinctive emblem on a white background. (It should be noted, however, that the camouflage of a medical/dental facility is authorized when the lack of camouflage might compromise the tactical operation. If the failure to camouflage endangers or compromises the tactical operations, the camouflage of medical/dental facilities may be ordered by a NATO commander of at least brigade level or equivalent. Such an order is to be temporary and local in nature and is countermanded as soon as circumstances permit.) Use of the red cross symbol on facilities highlights the status of the facility; however, it is not mandatory. While use of camouflage or other concealment does not in itself result in loss of protected status, it is less likely that the enemy will be aware of the protected status of the unit. The use of camouflage for dental units, therefore, becomes a tactical decision, generally made by the major tactical commander in the area.

4-27. Rear Area Operations

a. Rear operations are actions, including area damage control, taken by units, singly, or in a concerted effort, to secure and sustain the force, neutralize or defeat enemy operations in the rear area, and ensure freedom of action in deep and close operations.

b. Combat health support units are established within base clusters to afford them the protection offered by the other combat, CS, and CSS forces. Combat health support units are limited by the provisions of the Geneva Conventions in responding to enemy action. (Refer to Appendix A, FM 8-10 for additional information on self-defense and the defense of patients.)

c. Dental units must be prepared to assist medical treatment elements in mass casualty situations that may arise in the rear area. Thorough planning, effective communications, and training and rehearsal of these types of operations are required if they are to be successfully executed.

Section VII. RECONSTITUTION AND REDEPLOYMENT PHASE OF DENTAL OPERATIONS

4-28. General

Upon mission completion, dental units must be able to rapidly recover and redeploy from the TO, or continue to support the overall mission. There are four major areas to be considered in the recovery phase of operations—recovery, reconstitution, redeployment, and documentation. Traditionally, the recovery phase of operations has not received the same degree of emphasis as other operational tasks; however, the need for rapid reaction and flexibility on the modern battlefield demands otherwise. Upon completion of any operation within a TO, there is a natural tendency for letdown and a corresponding drop in the sense of urgency perceived by the soldiers of the unit. Successful recovery presents the greatest challenge to the commander's ability and is a major test of the unit's level of discipline. Those tasks associated with recovery must be clearly delineated in the TSOP and trained on a regular basis.

4-29. Redeployment

Redeployment applies at the tactical, operational, and strategic levels. Redeployment is fully explained in FM 100-17. It is important to note that redeployment does not signal termination of the cycle of operational tasks for any theater units. Rather, it signals the start of a new cycle as the commander initiates planning for the next operation.

4-30. Reconstitution

Reconstitution is the basis for the treatment team concept. It is the ability to maintain continuously, in sufficient measure, the capability to create additional forces beyond those of the base force. Reconstitution is also the process of creating additional forces to deter an emerging global threat from competing militarily with the US. In the case of dental units, a treatment team consists of a dentist and a dental assistant. With respect to all dental units, reconstitution will generally consist of cross-leveling or replacing personnel, supplies, and equipment.

4-31. Documentation

Documentation in the form of an after-action report (AAR) is important. The AAR serves not only as a basis for immediate reconstitution, but also acts as a historical reference and a basis for future planning. An AAR should be accomplished after the termination of each mission and again, in greater detail, upon completion of the overall operation. A greater emphasis is being placed on the collection of lessons learned; therefore, their documentation in the AAR simplifies response to calls from outside agencies. The format for the AAR is often specified in the TSOP of higher headquarters, but should be modified to accommodate dental concerns. When no prescribed format is directed by higher headquarters, dental units should develop their own as a matter of TSOP.

CHAPTER 5

COMMAND, CONTROL, AND COMMUNICATIONS**Section I. INTRODUCTION****5-1. General**

In Chapter 4 (paragraph 4-4), ten operational tasks were listed that need to be performed by dental units to accomplish the overall mission of providing dental service. In this chapter, C2 is yet another task that must be successfully accomplished. It is addressed separately here because it is an inherent part of each of the previously discussed tasks, as well as a means of coordinating all of the tasks toward the single objective of mission accomplishment.

5-2. Concept of Command and Control

a. Title 10 of the US Code directs dental officers to be organized into dental units commanded by dental officers. However, some means must be provided for coordinating the overall DSS effort with those dental assets not assigned directly to dental units, as well as among the dental units themselves. It is important, therefore, to understand the various dental commands and technical supervision chains along with the communication systems that support them.

b. Command and control of dental personnel assigned to an ASMB is relatively straight-forward; however, overall control of dental services in the CZ and within the entire theater is complicated because approximately one-third of the dental officers within the CZ do not fall under direct dental C2. It is imperative that dental resources in a theater synchronize their activities through available channels to provide a coordinated system of dental services. In many cases, this will call for a flexible and innovative application of normal C2 doctrine. It also requires a great deal of cooperation between all the separate dental elements in the theater.

Section II. COMMAND AND CONTROL**5-3. General**

According to FM 101-5, command is the authority a commander lawfully exercises over subordinates by virtue of rank or assignment. Inherent in command is the responsibility for the soldiers' health, welfare, morale, discipline, and training, as well as authority under the Uniform Code of Military Justice and ethical responsibilities under the Law of Land Warfare. Command also includes the responsibility and authority for planning, employing, organizing, directing, coordinating, controlling, and maintaining the unit's resources in a ready condition. The latter processes can be thought of collectively as control. They are often delegated, in part, to members of the staff. In the case of commands with staff dental surgeons and subordinate dental units, delegation of some degree of control over dental operations by the nondental commander to his dental surgeon is the most effective means of providing coordinated dental services. Command responsibility and authority are established through various standard relationships described in FM 101-5.

5-4. Technical Supervision

Field Manual 101-5 states that when the technical or professional nature of certain activities requires a special relationship, command responsibility and authority may rest with a commander outside the normal organizational chain of command. With respect to dental operations, technical supervision applies only to professional matters and aspects of the dental portion of the overall CHS plan. Technical supervision does not usurp command prerogative with regard to employment and operational control; however, it can greatly influence conduct of operations at subordinate levels. Technical supervision guidance is usually in the form of a policies and/or command directives. Dental commanders exercise technical supervision over their subordinates as part of their command authority. At higher levels, the corps MEDCOM deputy commander for dental services exercises technical supervision. This individual, in addition to providing technical supervision, will interface with higher headquarters to include joint, allied, coalition, and host-nation dental services. The theater MEDCOM dental surgeon exercises technical supervision over all dental assets in the theater.

5-5. Command and Technical Supervision Chains

Figure 5-1 illustrates the dental command and technical control relationships in a five-divisional notional corps model. Though notional and based strictly on basis of allocation (BOA) for the units depicted, it is a fairly standard laydown. Combat health support organization in EAC is far more variable; however, the basic dental command and technical supervision relationships would be fairly similar. The continuous, solid lines in the figure represent the notional command chain overall, and the wide lines highlight the pure dental portion of the command chain. The broken lines represent the dental technical supervision chain based on the principles discussed in paragraph 5-5. In many cases, the technical supervision chain crosses over the standard command chain, highlighting the difficult challenge posed to the senior dental surgeon in orchestrating a coordinated dental service program.

5-6. Interim Relationships

Dental resources are a scarce asset within the TO. It is, therefore, essential that they be employed in a manner that maximizes their capabilities.

a. Command. In the absence of a dental C2 headquarters, dental assets are assigned to the senior medical C2 headquarters. If the headquarters does not have a dental surgeon assigned, the commander of the dental company/detachment/team also serves as the command dental surgeon. In addition, the dental company/detachment/team commander serves as the medical brigade dental surgeon. In this arrangement as the command dental surgeon, he provides technical supervision and advice on the delivery of dental support, and as the commander, he exerts control over the employment of the dental assets commandwide.

b. Technical Supervision. If the senior medical headquarters has a dental surgeon assigned, he has *staff* responsibility (to include technical supervision) over the dental assets assigned to the command. However, he does not have a command relationship with these units. To facilitate dental care delivery, this staff officer must ensure that the dental support effort is synchronized and uses the available dental assets

efficiently. Because of his position, the dental surgeon has the ability to identify and analyze the dental support needs of the entire command, rather than only a specific dental element's AO. To enhance the medical headquarters commander's ability to provide dental services throughout his command, the dental staff surgeon may reach an understanding with the medical headquarters commander to facilitate this process. This agreement may permit the dental surgeon, in the name and authority of the medical headquarters commander, to dictate and coordinate the employment of the dental assets within that command.

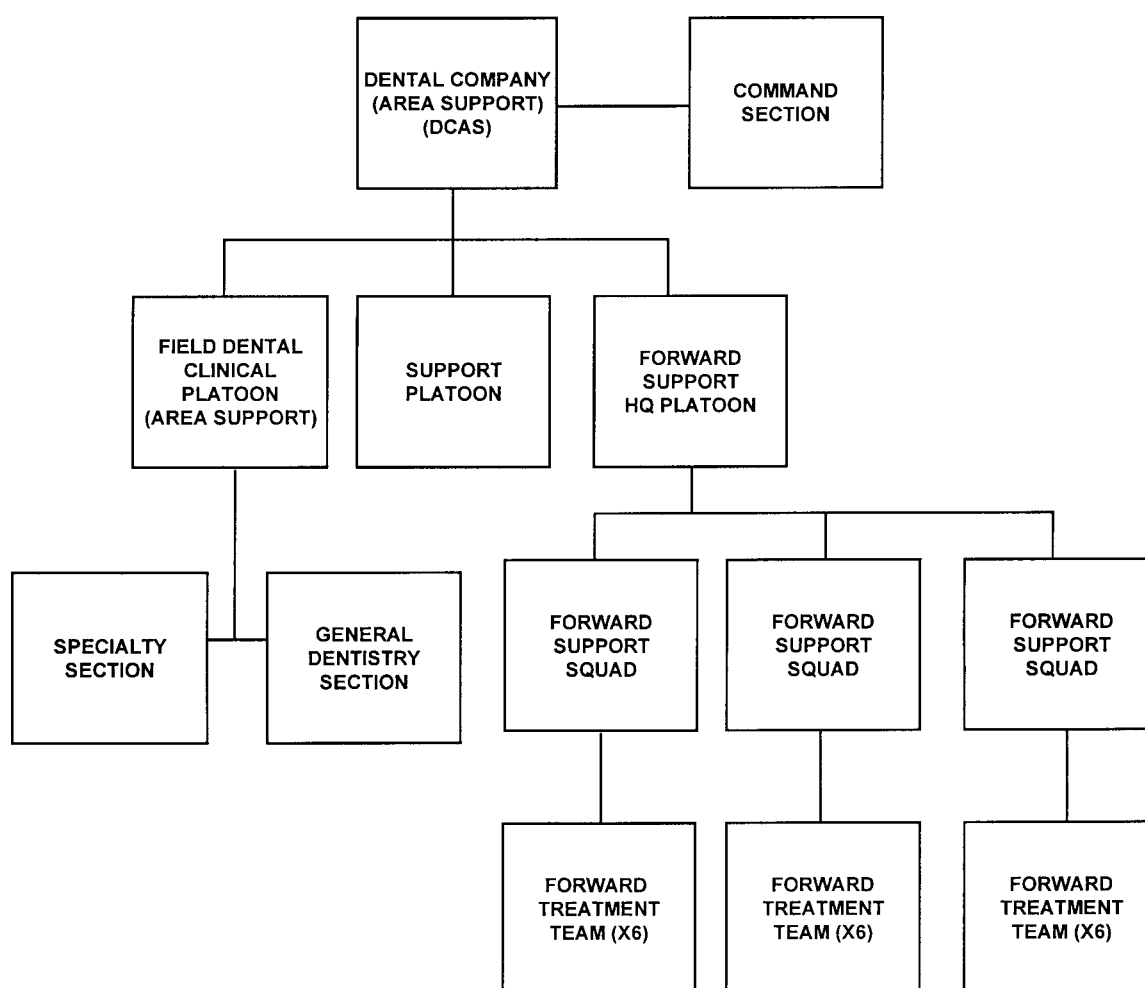


Figure 5-1. Corps dental organization.

5-7. Theater Army Dental Surgeon

The theater MEDCOM dental surgeon also serves as the Air Standardization Coordinating Committee. In this vital role, he is the primary interface with the CONUS base for transfer of dental information. In addition to establishing overall theater dental policy, he is also the primary Army consultant to the unified command surgeon on joint service dental matters. In many instances, a formal MEDCOM is not present in the theater. It is important, however, that there be effective dental representation on the Army surgeon's staff, or in any provisional MEDCOM that is formed, regardless of the size of the theater. Again, the senior dental officer (by position) assumes this role.

Section III. COMMUNICATIONS

5-8. General

Effective C2 depends on a reliable system of communications for the transfer of information. Communication equipment organic to CHS units is relatively limited. The CHS system, therefore, depends on DS and general support signal corps services. Combat health support commanders must understand the total Army communications system to effectively communicate on the battlefield and with the CONUS base. Field Manual 24-1 provides guidance on basic battlefield communications systems. The CHS commanders must incorporate support available from signal support systems into their overall communications plan.

5-9. External Communications Support

Dental units are dependent on other units for varying degrees of communications support. This is particularly true for detached dental elements that have no capability other than a single field phone instrument, yet must still maintain contact with their unit headquarters. The two most likely possibilities for communications support are described below.

a. Supporting Medical Unit. The supporting unit for dental units and their elements is a hospital. Army hospitals have radio capability with their parent headquarters, and in most cases, with other hospitals. Additionally, they are equipped with a switchboard into which the dental element can link its field telephone.

b. Signal Corps Units. Dental units are unlikely to have a direct relationship with signal corps units in the area. However, they will be able to access a network system, either through their supporting unit or through direct wire linkage to the signal node. Landline telephone networks established by signal corps units are of particular benefit to dental units.

5-10. Alternate Communications Means

Alternative means of communication are available in addition to radio nets and voice telephone. Most involve the passage of hard-copy data, either handwritten or machine transmitted. The advantage of hard

copy is that it is addressed specifically to the recipient, reducing the possibility of radio operators failing to pass on relayed information. It is also more appropriate for the transfer of voluminous statistical data and reports. Listed below are some possible alternatives to radio and voice telephone communications.

a. Teletype. If adjacent units have teletype capability, dental elements may be able to use that equipment to send the addressed message and rely on the receiver to deliver the message as appropriate.

b. Facsimile. Facsimile (FAX) machines are becoming common on the battlefield. Dental elements with access to units equipped with FAX machines may be able to establish a support arrangement similar to that for the teletype systems described above.

c. Message Center Distribution. The MEDCOM and medical brigades/medical groups may have an established message center distribution network that can be used by assigned dental units.

d. Unit Courier. When all else fails, dental units may have to rely on an internal unit courier system, using organic vehicles. An effective method is to couple message traffic with scheduled and unscheduled supply distribution runs.

Section IV. COMMUNICATION OF DENTAL INFORMATION

5-11. General

The extremely limited capability for voice communications organic to dental units is offset somewhat by the limited amount of information that needs to be transmitted in real time. Most dental information is adaptable to "roll-up" and hard-copy transmission on a periodic basis. Dental commanders and staff dental surgeons should identify that information which must be transmitted and the appropriate channel for transmission.

5-12. Command and Staff Communications Channels

Command and staff communications channels are a means of passing or communicating orders, instructions, advice, recommendations, and information within a headquarters and from one headquarters to another.

a. Command Channel. This channel is the direct, official link between headquarters and commanders. All orders and instructions to subordinate units pass through this channel. Within the dental units, instructions from the dental commander to his subordinate units or elements pass through command channels. Most command channel information relates to the immediate tactical situation and requires rapid transmission and dissemination.

b. Staff Channel. This channel is the staff-to-staff link between headquarters. Within dental units, the staff channel deals primarily with day-to-day administration and support activities.

c. Technical Channel. Commanders and staff use this channel to send technical instructions between commands. Unlike the command channel and the staff channel, there is generally no dedicated technical communications channel. This is particularly true for dental technical information. However, the overall dental care system relies heavily on technical channels for dissemination of patient treatment policy and other professional guidance.

5-13. Types of Dental Information

Given their limited communications capability, dental commanders and staff dental surgeons must choose carefully which information must be passed and which mode of transmission to use. Described below are various items of information pertinent to dental units and the probable mode of transmission. This description is not absolute and is open to modification to suit a particular situation; however, it does provide a good basis for establishing an effective dental information network.

a. Command Information. Command information is disseminated through command channels to dental units and their subordinate elements, if dispersed. The command channel generally consists of a secure radio net that is used to transfer immediate information concerning the tactical situation. Command information that is less time sensitive is usually transferred by hard copy or field telephone, if appropriate. Examples of command information are orders, directives, and NBC reports. Routine dental service operational matters generally are not transmitted over command channels.

b. Routine Information. The majority of dental information constitutes routine business and is passed through staff channels, both within the dental battalion and from the battalion to its higher headquarters. Most data-type information and standard reports passed through staff channels are transmitted by wire, FAX, or by courier, if necessary. Bulk information is generally passed by courier. The primary means of voice transmission is by field telephone and available landline networks. Generally, dental units do not pass routine staff information through radio networks; however, in certain situations some units may require passage of formatted daily status reports by radio. For convenience, a TSOP generally prescribes formats for reports and information required on a regular basis by higher headquarters. Staff channel information pertinent to dental units covers the full spectrum of administration, support, and clinical operation matters including—

- Personnel actions.
- Combat health logistics resupply and stockage levels.
- Workload reporting.
- Clinic status reports.
- Medical equipment maintenance.

c. Technical Information. Dental technical information generally addresses professional matters and patient treatment policy and is issued in the form of written policies and/or directives. Dental technical

information is generally not time sensitive and is passed in hard copy. There may be rare instances, however, when information, such as drug or materiel safety alerts, requires URGENT priority for wire transmission. An important link in the dental technical channel is with the CONUS sustaining base through the Office of the Assistant Surgeon General for Dental Services. The MEDCOM dental surgeon or the senior dental surgeon in the theater must establish this link. This is done either through the mail for bulk information, or using strategic communications capability, if accessible, for more time-sensitive information.

5-14. Patient Treatment Data

Capture of patient treatment data is necessary for planning current DSS and distribution of resources. It also serves as a basis for future research and analysis of dental force structure requirements. Patient treatment information must be recorded, consolidated, and forwarded through the appropriate communications chain for further analysis and consolidation at each level.

a. Patient Treatment Data Chain. Patient treatment information generated by the medical battalion (dental service) commander, hospitals, and the ASMB assigned to the medical brigade is forwarded through normal staff channels, to the corps MEDCOM. Here the deputy brigade/group commander (dental services) consolidates the information and forwards it to either the theater MEDCOM or CONUS.

b. Dental Status Report. Figure 5-2 is a proposed format for a dental status report to be forwarded through the dental information chain, as required. At lower levels, it is forwarded daily by DTFs to their parent unit, which, in turn, consolidates the input for forwarding to higher levels. Consolidating and forwarding from the medical group/brigade may be on a less frequent basis, but should be timely enough to allow senior staff dental surgeons to react to developing trends and situational changes. This status report is a consolidation of key items of information for planning purposes; for additional information, refer to Chapter 3.

SAMPLE FORMAT**DAILY DENTAL UNIT STATUS REPORT**

UNIT _____ DATE _____
(DAY/MONTH/YEAR)

LOCATION _____

DESCRIPTION	ARMY	AF	NM	OTHER
DENTAL EMERGENCIES				
DISEASE AND NONBATTLE INJURY				
BATTLE INJURY				
DENTAL EMERGENCY FOLLOW-UP				
ESSENTIAL CARE				
POSTMORTEM EXAMINATIONS				
PREVENTIVE DENTISTRY				
DENTAL PROPHYLAXIS				
OTHER PREVENTIVE SERVICES				

ADMINISTRATION (REMARKS)

PERSONNEL _____

EQUIPMENT _____

SUPPLIES _____

FACILITIES _____

OTHER _____

SIGNATURE BLOCK

LEGEND:

AF AIR FORCE
NM NONMILITARY

Figure 5-2. Daily Dental Unit Status Report.

CHAPTER 6

**EMPLOYMENT OF THE MEDICAL BATTALION
(DENTAL SERVICE)****6-1. General**

The medical battalion (dental service) is the only C2 dental unit in the TO. The units assigned to the medical battalion (dental service) will provide field dental clinics in the corps and EAC. It deploys forward treatment teams to the division and brigade areas in the CZ with the capability to administer sustaining and emergency care. The level of care will be determined by the tactical situation. These teams augment and reinforce medical units with organic dental assets.

6-2. Medical Battalion (Dental Service)

The medical battalion (dental service) is generally subordinate to the medical brigade/medical group of the corps MEDCOM; however, it could be directly assigned to the corps MEDCOM and theater MEDCOM. The number of medical companies (dental service) and medical detachments (dental service) assigned to the medical battalions (dental service) employed depends on the density of troop population to be supported, the size of the geographic area to be served, and the Army's fielding plans. This company has a BOA of 1 per 20,000 troops supported if collocated with a hospital and an ASMB; otherwise, the BOA is 1 per 24,000 troops supported. There may be situations where troop concentrations exceed this BOA, such as in marshalling areas.

6-3. Medical Detachment (Dental Service)

The medical detachment (dental service) provides operational dental care consisting of emergency and essential dental care on an area support basis within a TO and further provides far forward emergency dental care, as required. This unit may be assigned to the theater MEDCOM, corps MEDCOM, or corps medical brigade/group. Within the area support modular design of CHS, the support squad is comprised of one Dental Corps officer, a dental specialist, an x-ray specialist, and a medical laboratory specialist. The squad is organic to the medical companies of separate brigades, groups, divisions, SFG, and ASMC in the corps and COMMZ. The dental officer will receive additional training (see DA PAM 40-13.) and will provide additional treatment capabilities to the clearing station during peak patient loads (mass casualties).

6-4. Phased Employment of Dental Services

Current capability based on TOE gives dental units, individually and collectively, the flexibility and adaptability to provide dental support at all levels of warfare from the initial stages of the conflict until hostilities cease and US presence is terminated. Medical casualties are a function of combat activity and DNBI; however, dental casualties are principally a function of time. If a high state of dental readiness is assumed for troops prior to deployment, it follows that the requirements for DSS units in the theater will increase as the theater matures. Figure 6-1 illustrates the increase in dental requirements over time based on past experience.

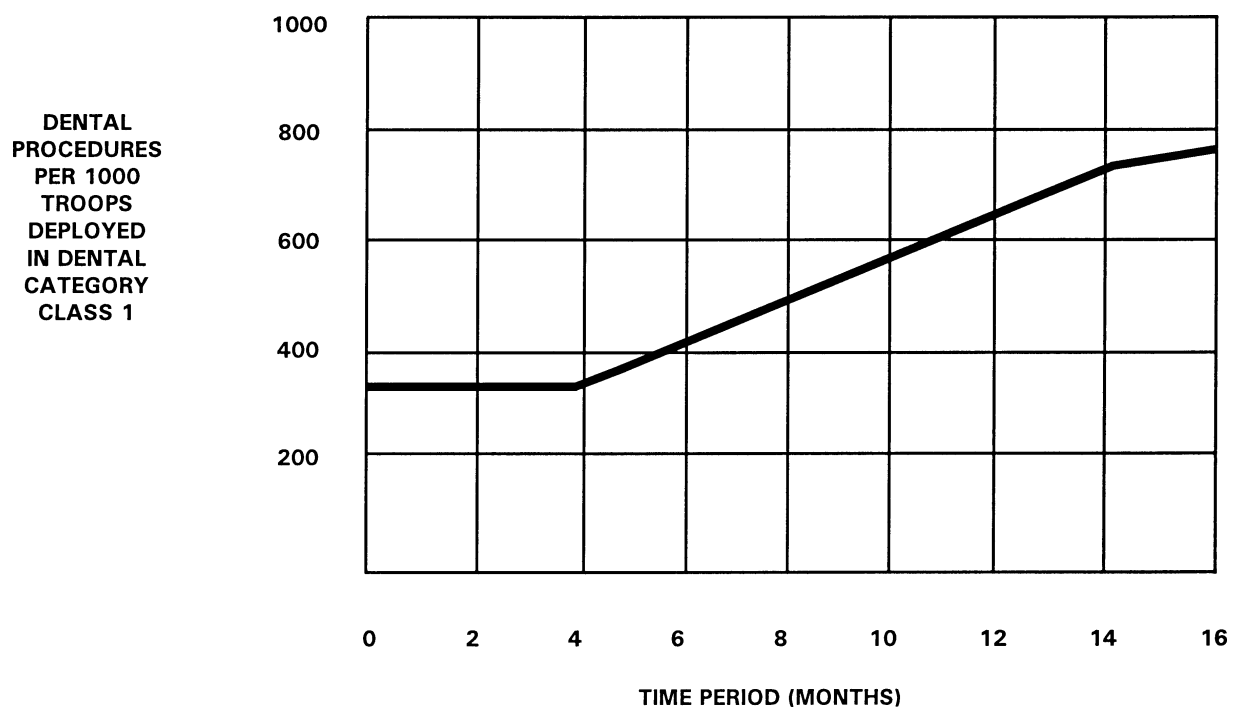


Figure 6-1. Increase in dental requirements over time, based on past experience.

CHAPTER 7

**DENTAL SUPPORT IN STABILITY OPERATIONS
AND SUPPORT OPERATIONS****Section I. INTRODUCTION****7-1. General**

a. Dental support in stability operations and support operations range from the traditional support for deployed US forces, to establishing and/or augmenting dental programs in nation assistance, humanitarian, and civic assistance operations. Dental support in domestic support operations is often limited in terms of manpower, equipment, and supply. Stability operations and support operations have emerged as an area of high probability for future involvement of the US military. These types of operations encompass a broad spectrum of activities that require a great deal of flexibility and innovation on the part of those involved.

b. The following overview is a brief discussion of stability operations and support operations and DSS for these operations; however, a more complete understanding is required in planning and executing stability operations and support operations. For additional information on stability operations and support operations, refer to FM 8-42.

7-2. Overview

a. Definition. Stability operations and support operations are political-military environments of peace and conflict. They frequently involve protracted struggles of competing principles and ideologies. Stability operations and support operations range from subversion to the use of Armed Forces. They are initiated by a combination of means: employing political, economic, informational, and military instruments. Stability operations and support operations are often localized, but contain regional and global security implications.

b. Imperatives. The listed imperatives apply to all operators in the stability operations and support operations environment including CHS. (Refer to FM 8-42 for an in-depth discussion concerning this subject.)

**Section II. DENTAL ROLE IN STABILITY OPERATIONS
AND SUPPORT OPERATIONS****7-3. General**

Dental support assets have the potential to be important contributors during stability operations and support operations. While their primary role is to support US, allied, coalition, and host-nation forces, they can also contribute by participating in dental-related civil affairs operations. Dental support will contribute to

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the broad spectrum of programs within stability operations and support operations, ranging from conducting small self-help dental programs in undeveloped rural areas to assisting the host nation's dental care system infrastructure within metropolitan areas. As with other CHS, the effectiveness of dental support is dependent on the mission. Dental support efficiency is closely related to the nature of the stability operations and support operations. (See FM 8-42 for specific details on stability operations and support operations.) The following is a partial list of activities and programs for which dental assets could be used:

- Provide dental treatment to members of the local population.
- Conduct oral hygiene classes and provide hygiene treatment in local communities.
- Assist in the establishment of community dental health programs.
- Assist in the development and/or establishment of a host-nation military dental health care system.
- Assist in the training of local dental care providers.
- Provide consultation and assistance on host-nation dental health care programs (for example, designing and administering a survey to determine the level of oral health of a population).

For dental support programs to be successful, certain guidelines which parallel the stability operations and support operations imperatives must be followed.

a. When working within the host nation's medical infrastructure, the US dental personnel must coordinate with the host-nation dental system from the local to the national level to ensure unity of effort. They must be mindful not to introduce dental programs that cannot be supported by the host nation's infrastructure once the stability operation and support operation is completed.

b. Dental programs should be in concert with the political objectives of the country. They should be carefully coordinated with other governmental agencies through the command surgeon.

c. All US dental support activities should be directed toward long-term benefits for the supported population and should not exceed the capability of the host nation to continue the service once US forces have departed.

7-4. Dental Support Planning for Stability Operations and Support Operations

Dental staff participation should begin early in the planning of CHS for stability operations and support operations. Chapter 4 addresses planning and recommended formats for estimates, plans, and orders. These also apply to stability operations and support operations. A dental-specific stability operations and support operations and medical mission reconnaissance checklist is a valuable planning aid. The example shown in FM 8-42 could be adapted to fit dental requirements.

CHAPTER 8

ADDITIONAL WARTIME ROLES**8-1. General**

The additional wartime role for dental personnel is to augment the MTF with additional combat casualty care capability. This is particularly true during mass casualty operations. The dentist may augment the physicians in mass casualty situations, from assisting in surgery, to managing soft tissue wounds, to triage of patients. While the focus on dental additional wartime roles has generally been at the individual level, collective use of the dental unit or its subordinate elements may also be appropriate.

8-2. Training Requirements

In recognition of the additional wartime role mission, the Chief, US Army Dental Corps, has established a formal policy outlining training requirements in this area. These annual training requirements, based primarily on those outlined in Department of the Army Pamphlet (DA Pam) 40-13, are mandatory for all dental officers in the Army Dental Care System. A written record of wartime ATM training is maintained in the officer's credentials file and may be credited toward annual continuing health education requirements. Current training requirements address the following general subject areas:

- Forensic dental identification.
- Treatment of maxillofacial injuries.
- Management of soft tissue wounds.
- Operating room procedures.
- Management of NBC casualties.
- Treatment of orthopedic injuries.
- Cardiopulmonary resuscitation recertification.
- Initial burn treatment.
- Intravenous techniques.
- Intubation.
- Infection control and sterile technique.
- Medical triage.
- Psychological care.

8-3. Dental Operations Employment Options

Execution of the additional wartime role mission is largely dependent on circumstance, but the dental unit must be prepared for a number of possibilities. There are, however, two general categories of employment options—individual participation and collective unit participation. While the role of the individual dental officer has been the focus in the past when discussing additional wartime roles, collective employment of dental units or their subordinate elements may at times be the option of choice. The probability of casualties being brought to an available DTF is increased during periods of rear area battle or disaster in the base area. There is also the possibility of casualties from the dental unit itself who will need treatment or stabilization prior to evacuation. The forward treatment teams, when en route to different locations within the AOR, may encounter casualties along the way; dental officers will respond to the situation.

8-4. Individual Dental Officer Roles

There are a variety of roles that the individual dental officer can perform in support of mass casualty situations. The role selected is dependent on both the skills of the dental officer and the needs of the medical commander. Possibilities are—

a. Assistant Surgeon. The inherent surgical skills of the dental officer make him well suited for employment as an assistant surgeon.

b. Triage of Patients. Use of the dental officer to triage patients will free other doctors to increase the surgical workload capacity.

c. Minimal Treatment Provider. Dental officers can be used as minimal care treatment providers; however, this function should be delegated to medical/dental ancillary personnel.

8-5. Dental Treatment Facilities Additional Use

Dental officers assigned to an MTF, such as a division medical company or a hospital, are most likely included, along with their dental specialists, in the mass casualty plans for that facility. In situations where a dental unit or one of its larger subordinate elements is collocated with an MTF (perhaps a hospital), collective use of the dental unit in mass casualty situations may be advantageous. When additional treatment space is required, use of the adjacent DTF is incorporated into a utilization option.

8-6. Medical Treatment Facility Augmentation Options

There are a number of conceivable options for the use of DTF resources in support of mass casualty operations, all of which fit into one of three general categories. The option selected is a matter of agreement between DTF and MTF commanders.

a. Individual Augmentation/Manpower Pool. The dental officers essentially augment various MTF services on an individual basis, and the enlisted soldiers' work out of a manpower pool, primarily to

support patient transportation. The major disadvantage in this option is that it fails to use the space and equipment available in the DTF. It also fails to use whatever collective skills and training the DTF personnel may have.

b. Dental Treatment Facility Responsibility for a Treatment Function. The DTF personnel can establish a MINIMAL care treatment area within the DTF. This will eliminate congestion in the MTF area, thus freeing the MTF providers for other functions. The most logical of these functions for which the DTF physical facility and personnel are best suited is treatment of MINIMAL category patients. Minor burns, soft tissue injuries, minor fractures, and sprains are all easily treated in the DTF. This option frees MTF patient care providers for other areas, expedites RTD of the MINIMAL category patient, and clears the MTF of a large percentage of the patients who can be expected in a mass casualty situation. Successful employment of this option requires advanced planning and careful coordination to ensure adequate supplies are available and that patients are accounted for properly.

c. Combination of the Above. In those cases where a large DTF is collocated with a hospital, sufficient resources may be available to support a combination of both the above options.

8-7. Planning and Coordination

The key to successful use of dental resources in a mass casualty situation is planning and coordination. As a matter of priority, the DTF commander, upon arrival at a site collocated with an MTF, should coordinate with the MTF commander on a plan for use of the DTF resources in the event the MTF is overwhelmed. Once a plan is established, it should be rehearsed at the earliest opportunity.

CHAPTER 9

**DENTAL OPERATIONS IN A NUCLEAR, BIOLOGICAL,
CHEMICAL, OR DIRECTED-ENERGY ENVIRONMENT****Section I. INTRODUCTION****9-1. General**

The effects of NBC weapons, radiological dispersal devices (RDD), and directed energy (DE) devices on the battlefield present special challenges in the provision of dental service. The utility of NBC weapons against area targets, as well as their long-range and flexible means of delivery, ideally suit them for use against CSS concentrations and MSRs. Generally located within or near these lucrative area targets, dental units are at no less risk to NBC weapons than any other unit in the CZ and EAC. Defense against NBC weapons, RDD, and DE sources must be incorporated into the dental unit's TSOP. Specified individual and collective tasks must be intensely trained on a regular basis.

9-2. Mission in a Nuclear, Biological, and Chemical Environment

The overall mission of dental units to provide dental services is greatly affected in the aftermath of an NBC attack. First, the unit must survive the attack and rapidly recover from its effects. Second, in the event of mass casualties, the patient care effort must be redirected from dental treatment to the additional wartime role of augmenting adjacent MTF as discussed in Chapter 8. Dental services in an NBC environment will generally be limited to treatment of maxillofacial emergencies requiring immediate attention at the augmented MTF.

9-3. Technical Guidance

There are many sources of technical guidance for dental units on NBC and DE matters. The most specific guidance, however, on preparation for and response to an NBC attack should be contained in the TSOP of the parent headquarters. Field Manual 8-10-7 is the basic tactics, techniques, and procedures manual applicable to dental and other CHS units operating in an NBC environment. Field Manuals 8-9, 8-33, 8-284, and 8-285, and NATO STANAG 2068 provide guidance on patient treatment in the NBC environment. The FM 3-Series provides doctrinal guidance on individual and collective NBC tasks common to all Army units. Field Manual 8-50 provides procedures for prevention and treatment of laser injuries.

**Section II. NUCLEAR, BIOLOGICAL, CHEMICAL AND
DIRECTED-ENERGY ENVIRONMENTS****9-4. General**

The impact of NBC weapons, RDD, and DE devices could result in devastating effects of the involved nations' and their allies' military combat and logistic systems, as well as all of their supporting civilian

social structures and economies. Chemical warfare weapons and biological agents are easily manufactured; therefore, they may be employed to advantage by Third World nations. Chemical and biological weapons are most effectively employed against untrained or unprotected targets such as fixed sites (airfields, depots, cities, and ports) which are especially vulnerable. These sites may be targeted as part of the plan to defeat US force projection. The use of such weapons will potentially produce high casualty rates and materiel loss through unprotected exposure. Contamination from NBC weapons and RDD is a major impediment to operations, even for a well-protected force. Directed energy does not produce contamination, but requires special precautions just the same.

9-5. Nuclear Environment

Nuclear weapons produce three categories of damaging effects—blast, thermal radiation (heat and light), and nuclear radiation (principally, gamma rays and neutron particles). The effects of radiation are spread by both the detonation blast and the wind, effectively producing widespread areas of contamination.

a. Casualties generated in a nuclear attack will likely suffer concurrent injuries from the combination effects of blast, thermal burns, and radiation. These casualties fall into three categories:

(1) *Irradiated casualty.* The irradiated casualty is one who has been exposed to ionizing radiation, but is not contaminated. They are not radioactive and pose no radiation threat to health care providers. Casualties who have suffered exposure to initial nuclear radiation fit into this category.

(2) *Externally contaminated casualty.* The externally contaminated casualty has radioactive dust and debris on his clothing, skin, or hair. He presents a “housekeeping” problem. The externally contaminated casualty should be decontaminated at the earliest time consistent with required care. Lifesaving care is always rendered before decontamination is accomplished, when necessary. Radioactive contamination can be monitored with a radiation detection instrument such as the AN/PDR-27 or AN/VDR-2. Removal of the outer clothing will result in greater than 90 percent decontamination. Soap and water can be used to further reduce the contamination levels. A contaminated patient, or even several contaminated patients, is unlikely to present a radiation hazard to attending medical personnel.

(3) *Internally contaminated casualty.* The internally contaminated casualty is one who has ingested or inhaled radioactive materials; or has had radioactive material injected into the body through an open wound. The radioactive material continues to irradiate the casualty internally until the material decays, is biologically eliminated, or is removed by surgical debridement. Attending health care personnel are shielded, to some degree, by the patient’s body. Inhalation, ingestion, or injection of quantities of radioactive material sufficient to present a threat to medical care providers is highly unlikely.

b. Dental units operating in a contaminated environment created as a result of residual radiation (fallout) will face three basic problems.

(1) Immersion of the unit area in fallout, causing contamination of shelter, unprotected supplies and equipment, vehicles, personnel, and personal equipment.

- (2) Casualties among unit personnel as a result of the detonation or exposure to fallout.
- (3) Contamination of supply routes and other areas required for movement.

9-6. Biological Environment

A biological attack (using bomblets, rockets, or spray/vapor dispersal, release of arthropod vectors, and terrorist/insurgent contamination of food and water, frequently without immediate effects on exposed personnel) may be difficult to recognize. Biological warfare indicators include—

- An increase in disease incidence or fatality rates.
- Sudden presentation of an exotic disease.
- Other sequential epidemiological events.

9-7. Chemical Environment

Description of the chemical environment is complicated by the number of known agents, variety of damaging effects, varying degrees of persistence and volatility, and multiple means of delivery. The environment is further complicated by employment of mixed chemical agents, mixed chemical and biological agents, or chemical agents combined with conventional ordnance. As with nuclear weapons, in addition to casualties among unprotected soldiers, the varying degrees of contamination produced in the aftermath of a chemical attack severely degrade the unit capability until decontamination is accomplished and the contaminated area is vacated. Detailed background information contained in FMs 3-3, 3-4, 8-9, 8-10-7, and 8-285 concerning the chemical environment, as well as the nuclear and biological environments, must be clearly understood by dental commanders and their subordinates.

9-8. Radiological Dispersal Device Environment

Radiation from RDD is a new dimension of the battlefield. Radiological dispersal devices can contaminate the battlefield with radiation without the blast or thermal effects of a nuclear weapon. The radiation is spread by the use of high explosives. Personnel operating in the area can be exposed to varying levels of radiation, from very low doses to very high doses. The effects on the body from this type of radiation can be the same as exposure to the radiation from a nuclear detonation. Dental commanders must be prepared for operations in this environment as they would in a nuclear environment.

9-9. Directed-Energy Environment

Directed-energy sources are becoming more prevalent on the modern battlefield and their presence will undoubtedly increase in the future. This produces yet another dimension on the battlefield. Directed-energy

sources include laser, microwave, or radio-frequency systems. Directed-energy sources are nondiscriminatory. Adverse effects on dental units may result from inadvertent exposure to friendly use as well as enemy employment. Field Manual 8-50 provides additional information on the prevention and medical management of laser injuries.

Section III. DENTAL UNIT SURVIVAL IN A NUCLEAR, BIOLOGICAL, AND CHEMICAL ENVIRONMENT

9-10. General

Dental units must be able to survive an NBC attack, recover from its effects, and then continue the dental care mission. To survive and recover, a number of individual and collective tasks derived from the principles of NBC defense must be accomplished. Dental units are suitably equipped to perform these tasks.

9-11. Principles of Nuclear, Biological, and Chemical Defense

The principles of NBC defense are discussed in the FM 3-Series manuals. These principles, briefly discussed below, apply to all dental units regardless of their location in the theater.

a. Avoidance. Avoidance measures consist of both active and protective measures.

(1) Active avoidance measures.

- Contamination detection.
- Contamination marking.
- Alarms and signals.
- Warning and reporting system.
- Contamination control.

(2) Passive avoidance measures.

- Training.
- Use of hardened positions.
- Dispersion.

b. Protection.

- Hardening of positions and protecting personnel.
- Assuming mission-oriented protective posture (MOPP).
- Reacting to attack.
- Using collective protection.

c. Decontamination.

- Immediate decontamination.
- Operational decontamination.
- Thorough decontamination.

9-12. Nuclear-, Biological-, and Chemical-Related Clothing and Equipment

The TOE and appropriate CTA for dental units provide NBC equipment for the accomplishment of both individual and collective NBC survival tasks.

a. Individual Protective Equipment. Each soldier is provided with a protective mask with hood. Two sets of MOPP clothing (trousers, jacket, overboots, and gloves) are allocated each soldier by CTA 50-900. Other NBC items intended for individual use are the VGH ABC M8 Detector Paper, M291 Skin Decontaminating Kit, M295 Individual Equipment Decontamination Kit, nerve agent antidote autoinjectors nerve agent pyridostigmine pretreatment tablets, and convulsant antidote for nerve agent. These items are maintained in sufficient quantities by the unit to ensure initial and resupply issue for each soldier. Field Manual 8-285 prescribes the use of these items.

b. Nuclear-, Biological-, and Chemical-Related Equipment. The dental TOE provides for common items of NBC-related equipment.

c. Other Nuclear-, Biological-, and Chemical-Related Equipment. Common use NBC items not prescribed by TOE are listed in FM 3-Series NBC publications.

d. Nuclear-, Biological-, and Chemical-Related Repair Parts and Replenishment Supplies. The unit must maintain stocks of NBC-related repair parts and replenishment supplies in accordance with the technical publications for the various items of equipment. Of particular importance among these items are replacement filters, hoods, carriers, and other items for the protective mask. The unit's NBC NCO manages unit NBC supplies in coordination with the unit supply NCO and supervises maintenance on NBC equipment.

e. Eyeglass Inserts for the Protective Mask. Soldiers who require eyeglasses for vision correction are required to have one pair of prescription optical inserts for use with their protective mask. Optical inserts are stored and maintained as part of that soldier's mask.

9-13. Individual Tasks

Individual NBC-related survival tasks are common to all soldiers. Successful application of each task is essential to personal survival, as well as survival of the collective dental unit. These tasks must be drilled constantly and incorporated into broader scale training. The NBC-related tasks, along with necessary training information, are covered in the Soldier Training Publication (STP) 21-1-Soldier's Manual of Common Tasks.

9-14. Collective Unit Tasks

Collective NBC tasks are generally accomplished by members of the unit organized into teams or by designated members of the unit. The successful performance of individual tasks is necessary for accomplishment of the various collective tasks, and ultimately, unit survival. Collective tasks which dental units must be prepared to perform in an NBC environment are derived from the principles of NBC defense.

9-15. Decontamination

a. Basic Principles. Decontamination is costly in terms of manpower, time, space, and materiel, and merits special discussion. Decontamination is essential for survival, but must be balanced with the requirement to continue the mission. Decontamination operations are based on the following four basic principles:

- *SPEED*—Decontaminate as soon as possible to restore full potential.
- *NEED*—Decontaminate only that which is necessary.
- *LIMIT*—Decontaminate as close to the site of contamination as possible.
- *PRIORITY*—Decontaminate items in order of importance to mission accomplishment.

b. Immediate Decontamination. Dental personnel must perform immediate decontamination of themselves and their buddy to prevent the effects of NBC contamination. Personnel should use their M291 (Skin Decontamination Kit) for skin decontamination and their M295 (Individual Equipment Decontamination Kit) to decontaminate their personal equipment.

c. Operational Decontamination. Dental units are capable of conducting operational decontamination using only organic resources. Field Manual 3-5 describes in detail the procedures for operational decontamination, which include MOPP gear exchange and vehicle washdown.

d. Thorough Decontamination. Thorough decontamination is the most resource-intensive type of decontamination and requires external support from supporting decontamination units. Field Manual 3-5 describes in detail the procedures for thorough decontamination, which include decontamination of troops and equipment. Keep in mind that the supporting decontamination unit is in charge of both the decontamination site and the decontamination operation.

NOTE

Dental units require external support for conduct of thorough decontamination.

9-16. Dental Support During Nuclear, Biological, and Chemical Operations

A dental unit's operation in an NBC environment is limited. The commander is ultimately responsible for dental unit activities during NBC operations; however, he will generally delegate planning and supervisory responsibility to an appointed NBC officer. The unit NBC NCO provides technical advice to the commander and NBC officer; he supervises personnel providing support relative to NBC operations and training. Unit headquarters executes a number of NBC-related tasks.

a. Establishment of Nuclear, Biological, and Chemical Procedures. Nuclear, biological, and chemical procedures are incorporated in the unit's TSOP. Key personnel such as the NBC officer are appointed on orders. Personnel requirements for decontamination, survey, and monitoring teams are determined, and designated personnel are appointed on orders.

b. Nuclear, Biological, and Chemical Warning and Reporting System. The unit headquarters coordinates implementation of the NBC warning and reporting system—receiving, generating, or disseminating the NBC reports. Field Manual 3-3 discusses the use and formats for these reports.

c. Establish the Unit Operational Exposure Guide and Maintain Records of Radiological Exposure. The commander establishes the radiation operational exposure guide for the unit. The unit headquarters maintains a record of exposure of its personnel to radiological hazards. This information is used in generating a radiation status report to higher headquarters. Exposure of x-ray personnel as indicated on their IM-9/PD radiacmeter must be included in this record.

d. Operational Planning and Intelligence. The medical brigade is responsible for disseminating NBC information to its subordinate units, which includes the dental unit. The NBC information received is used by the dental unit to develop its overall operational plan.

9-17. Mission-Oriented Protective Posture

The most important headquarters function for dental unit survival during NBC operations is the establishment of MOPP level, a decision that rests solely with the commander. Mission-oriented protective posture is the

flexible use of protective clothing and equipment that balances protection with performance degradation. The higher the MOPP level, the more protection it affords, but the more it degrades performance through generation of heat, stress, and reduced efficiency. Detailed guidance on individual NBC protection and MOPP is provided in FM 3-4. Keep in mind that MOPP is not a rigid policy, but must be applied with common sense and flexibility. To determine the appropriate MOPP level, the commander conducts a MOPP analysis which weighs mission; work rate and duration; probable warning time; terrain, weather, and time of day; unit training and additional protection available; alarm placement; and automatic masking policy.

Section IV. DENTAL TREATMENT OPERATIONS IN A NUCLEAR, BIOLOGICAL, AND CHEMICAL ENVIRONMENT

9-18. General

As a general rule, in the aftermath of an NBC attack, dental treatment operations cease until thorough decontamination of the unit and its equipment has been accomplished. Only maxillofacial injuries of an immediate life-threatening nature should be considered for treatment. After an attack, the resources of the DTF are redirected toward decontamination and relocation to a noncontaminated area, or toward support to an adjacent MTF for any mass casualty situation that may have been generated. See Chapter 8 for information on additional wartime role.

9-19. Patient Treatment Considerations

The only category of dental treatment appropriate in an NBC environment is operational care-emergency; and then, only those emergencies of an extreme nature which demand immediate attention. The most likely condition requiring such attention would result from maxillofacial trauma and the patient should be transported to a MTF rather than a DTF.

a. Patient Decontamination. Decontamination of patients must be accomplished before they enter a MTF. Contaminated patients are triaged separately and decontaminated prior to treatment unless immediate limb or lifesaving care is required. The decontamination process may be interrupted to provide such care. Patient decontamination falls into the category of thorough decontamination. Specific details of patient decontamination are contained in FM 8-10-7. Performance of patient decontamination is not an appropriate additional wartime role for dental personnel. However, dental personnel may be called upon to assist in providing medical care in this environment. All personnel should be trained to handle contaminated casualties when necessary. Initial decontamination at the basic skill level is accomplished at the casualty's unit. Patient decontamination teams made up of personnel from the supported unit and supervised by medical personnel accomplish decontamination at an MTF, not at a DTF.

b. Patient Decontamination by Dental Treatment Facilities. Neither dental units nor their subordinate DTFs are equipped to support detailed patient decontamination. Contaminated patients requiring

urgent attention which may present at a DTF must be directed or evacuated to the nearest MTF with a patient decontamination capability prior to treatment.

9-20. Patient Protection

Dental treatment facilities must also consider the need to protect patients in their care in the event of NBC attack or when the threat of an attack is high. Special consideration must be made for maxillofacial patients whose condition prevents them from wearing a standard protective mask.

a. Immediate Response. In the event of an attack or when the alarm sounds, the dental treatment providers immediately cease work and mask. The patient should do likewise. After donning their own masks, dental treatment providers should assist the patient, if necessary, by removing materials that impede the patient's masking. Only those materials that impede masking or may compromise the airway (for example, rubber dam frames or impressions) are removed. The rest are left in place until the all clear is sounded. Special attention must be given to patients who may have been medicated into a less than fully conscious state or otherwise incapacitated.

b. Mission-Oriented Protective Posture Level Considerations. The MOPP level should be taken into account when determining the category and extent of dental treatment to be provided. Patients, including those seated in the dental chair, should be at the MOPP level prescribed for the DTF by its parent headquarters. Dental treatment at MOPP Levels 3 and 4 is, of course, rendered impossible by the requirement to wear the protective mask; however, treatment is still possible at Levels 0 through 2. Treatment at Level 2 should be limited only to EMERGENCY category care requiring urgent attention. At MOPP Level 1, most types of dental emergencies can be accommodated; however, only minimum essential treatment should be undertaken. The MOPP Level 0 generally does not limit the provision of dental treatment; however, the degree of the NBC threat forecast for the area should be considered before undertaking extensive treatment. Refer to FM 3-4 for additional information on MOPP levels.

c. Maxillofacial Injuries. Patients with maxillofacial injuries, which prevent proper fit and seal of the individual protective mask, must be evacuated to an MTF for treatment when the threat of an NBC attack is imminent. This is due to the fact that these patients cannot mask and must be placed in a patient protective wrap after decontamination and treatment at the MTF.

CHAPTER 10

**SUPPLY AND SERVICES, MAINTENANCE,
AND COMBAT HEALTH SUPPORT****Section I. INTRODUCTION****10-1. General**

Supply and maintenance are key factors in the sustainment of dental service operations. Both of these areas impact heavily on unit readiness and are a subject of intense command interest throughout the chain of command. While the senior dental NCO is tasked with overseeing unit administration, the executive officer is tasked with overseeing supply and maintenance operations.

10-2. Unit Supply and Maintenance Personnel

The TOE for the medical company (dental service) provides a sufficient number of specialists, along with the necessary equipment, to conduct unit-level general and medical supply operations. This includes motor maintenance, material-handling equipment, power-generation equipment, upkeep of hand and power tools, and battlefield recovery operations of nonmedical equipment. Further, unit supply and maintenance personnel perform preventive maintenance checks and services, troubleshooting to isolate malfunctioning or defective components and/or boards on medically related equipment. Additional, they—

a. Establish and maintain stock records and other documents, such as inventory, materiel control, and accounting and supply reports, maintaining automated and manual accounting records; and post receipts and turn-in, due-in, and due-out accounts. They also verify quantities received against bills of lading, contracts, purchase requests, and shipping documents; and they unload, unpack, visually inspect, count, segregate, palletize, and store incoming supplies and equipment.

b. Maintain quality control, inventory control, repair parts management, distribution, supply management for all classes of supply (except Class VIII), and property management.

Section II. SUPPLY AND SERVICES**10-3. General**

Resupply of materiel consumed during the course of an operation is a major function of the company support section. The procurement of supplies is a prime function of the supply system; however, there are other aspects of this system which are of great concern to the commander; these include—

- Property accountability, responsibility, and security.
- Maintenance and disposition of supply records.

- Reporting of unsatisfactory medical materiel items.
- Inventory.
- Investigation and report of survey for lost and damaged property.

Discussion of specific procedures relating to the supply and service system is not appropriate in this publication; however, the company commander and staff must develop a thorough understanding of these procedures. The remainder of this section deals primarily with dental supply operations in the TO. Refer to ARs 40-61 and 710-2 for additional guidance on property management.

10-4. Classes of Supply

Supplies are categorized into ten classes. Dental units consume supplies from each of the ten classes in varying amounts. For dental units, these ten classes of supply are broken down into two general categories—medical supply and nonmedical supply. Management of medical supplies is the responsibility of the unit's medical supply specialist. The other nonmedical nine classes of supply are managed, in most cases, by the unit supply sergeant.

10-5. Medical Supply Operations

Dental units consume a significant amount of dental materials (medical supply) during the course of patient treatment operations, particularly when general and specialty care is being provided. An efficient system for replenishing those materials must be established within the unit and with the supporting medical logistics (MEDLOG) battalion.

a. The dental clinic and forward treatment teams receive their resupply from the unit's medical supply specialist. The medical supply specialist consolidates supply requirements, prepares DA Form 3161 in accordance with DA Pamphlet (Pam) 710-2-1, and forwards the request to the supporting MEDLOG battalion.

b. Distribution of medical supplies within the dental unit is by one of two methods. *Unit distribution* is the most common method used when the unit's DTF is in the assigned area. Supplies are picked up by the unit's headquarters personnel from the supply point and delivered to the DTF, using organic vehicles. *Supply point distribution* is used when the DTF is located at an inconvenient distance from the unit headquarters section. In this case, the affected DTF establishes accounts directly with the MEDLOG battalion or one of its forward or area support platoons, rather than going through the unit's medical supply specialist. When DTF use supply point distribution, they must continue to report expenditure and replenishment to the unit so the commander can remain abreast of the supply situation. When a forward treatment team has a long-term relationship with a host unit, such as a hospital or medical company, a provisional method should be considered whereby the forward treatment team obtains its supplies through the host unit. Supply distribution should be a matter for inclusion in the unit TSOP as well as specified in orders and plans developed by higher headquarters.

10-6. Unit Supply Operations

The medical supply specialist manages Class VIII supplies and the unit supply sergeant manages all other classes with the exception of Class IX, repair parts. Management of repair parts is the responsibility of the unit equipment repair/parts specialist. Management of the various nonmedical classes of supply is essentially the same as for Class VIII; however, distribution and source will vary with the class of supply. Class IX repair parts resupply is more commonly associated with the maintenance system rather than the supply system. As part of the repair parts system, dental units carry a prescribed load list (PLL) of repair parts and maintenance-related items to ensure that high demand repair parts are immediately on hand for use by unit maintenance personnel. Guidance on repair parts and PLL stockage is provided in DA Pam 710-2-1.

Section III. MAINTENANCE

10-7. General

Maintenance of vehicles and equipment is a critical aspect of sustainment in the TO. The unit that fails to maintain its equipment in good operating order will fail to accomplish its mission. The overall objective is to assure that materiel is maintained in a ready condition to fulfill its intended purpose. The dental company has a significant maintenance capability.

10-8. The Army Maintenance System

Army Regulation 750-1 prescribes the basic concepts, objectives, policies, and procedures for the maintenance of Army materiel. Guidance for implementation of The Army Maintenance Management System is provided in DA Pam 738-750. Technical Bulletin 38-750-2 adapts DA Pam 738-750 for use with medical equipment. Dental commanders must be well versed in the contents of all of these publications.

10-9. Preventive Maintenance

Preventive maintenance is the care and servicing to maintain equipment and facilities in satisfactory operating condition. It is provided through systematic inspection, detection, and correction of incipient failures before they occur or before they develop into major defects. Preventive maintenance is the responsibility of commanders at all echelons and is accomplished by user and maintenance personnel. Also, commanders are responsible for ensuring that maintenance of equipment is performed in accordance with published maintenance doctrine at the lowest category consistent with the repair parts, tools, and skills available (AR 750-1).

APPENDIX A

**DENTAL SERVICE SUPPORT UNDER THE
MEDICAL REENGINEERING INITIATIVE****A-1. General**

The L-edition TOE for dental support will be used until the A-edition is activated. The MRI will require significant reorganization for DSS personnel and will be more responsive to Echelons II, III, and IV operational needs. The following paragraphs describe in detail MRI for DSS. The dental mission will remain the same; however, treatment capabilities will be significantly improved when compared to the MF2K medical company (dental service) and the medical detachment (medical service) capabilities. (See paragraph A-8 for a comparison of MRI Force XXI and MF2K.)

A-2. Dental Staff

Coordination of the collective efforts of unit, hospital, and area dental support activities with the overall CHS operation is accomplished through dental representation on appropriate command and control staffs, usually in the form of a command dental surgeon. The dental surgeon is a special staff officer under the coordinating staff supervision of the S1/G1. In the medical brigade, the dental surgeon is a separate TOE position. In divisions, the comprehensive dental officer assigned to the main support battalion of the DISCOM fills this position. A dental unit commander who also serves as the dental surgeon is described as being “dual-hatted.” In some cases, the dental surgeon position is not clearly identified and becomes an *ad hoc* arrangement. In all of these cases, the dental surgeon works closely with the command surgeon to accomplish the mission. Staff advocacy is a critical element in the development of a coordinated DSS system throughout the TO.

A-3. Dental Staff Responsibilities

a. The dental staff officer provides input to the commander on policy, procedures, and plans that concern oral health and dental care. He prepares the dental estimate and assists in preparing the dental portion of the HSS operation plan (refer to FM 8-55 for information concerning the preparation of HSS estimates and plans). He assists in writing the dental support portion of OPORD. He provides technical guidance on dental matters to subordinate dental resources. He monitors the oral health of the supported population, the readiness of unit dental assets, and the tactical and strategic situation of supported units. He also assesses CHS plans to determine dental resource requirements. Specific duties may include surveillance of—

- (1) Severe oral and maxillofacial surgery cases in hospitals.
- (2) Status of dental resources in the AOR.
- (3) Operational requirements of supported troops (for example, number and types of units supported or in the area of responsibility; number of troops in supported units or AOR; tactical and strategic situation; location and distribution of supported units, and expressed needs of commanders).
- (4) The provision of dental services to EPW, refugees, and others.

b. The dental staff officer also serves as advisor to the commander on dental matters. On the basis of the information from surveillance, he makes recommendations concerning oral health and dental delivery for plans, OPORD, and policy.

A-4. Dental Staff Officer Positions

a. *Division.* The senior dental officer in a division is assigned to the main support battalion. In addition to his patient care responsibilities, he acts as the division dental surgeon and exercises technical supervision over the dental assets in the division forward support battalions. Dental officers in the forward support battalions serve as dental surgeons to the supported maneuver brigades.

b. *Separate Brigades, Armored Cavalry Regiments, and Special Forces Groups.* The dental officer in the medical element of these units also serves as dental surgeon for the parent unit.

c. *Medical Brigade (Corps: TOE 08422A1000, COMMZ: TOE 08422A2000).* The senior MRI Dental Company Area Support Commander is dual hatted as the brigade dental surgeon and located in the command section of this brigade. He exercises technical control over dental assets in hospitals and dental units subordinate to the medical brigade. Dental surgeons of corps medical brigades are dual-hatted as the corps dental surgeon and provide technical supervision for unit-level dental support (in divisions, separate brigades, and ACR) as well as for dental assets assigned within the brigade. A senior dental NCO assigned to the security, plans, and operations section assists the medical brigade dental surgeon.

d. *Medical Command (TOE 08611A000).* There are two dental staff officers in the headquarters company.

(1) The MEDCOM dental surgeon establishes and disseminates Army theater policy on dental matters. He exercises technical control over all dental units in the TO through the medical brigade dental surgeons. He directs the dental service element of the headquarters and provides dental staff support to the MEDCOM commander.

(2) The MEDCOM preventive dentistry officer supports the MEDCOM dental surgeon and assistant dental surgeon in all staff actions. Specific duties include—

- Providing oral health surveillance information in support of policy and procedure development.
- Developing plans and orders concerning oral fitness and preventive dentistry programs.
- Recommending treatment policies.
- Developing programs for dental support of humanitarian and civic action operations.

A-5. Dental Company (Area Support), TOE 08478A000

The newly developed dental company area support (DCAS) is a product of the MRI. When activated, it will replace the current dental battalion now in place under MF2K. The clinical and forward treatment capabilities are significantly improved when compared to the MF2K medical company (dental service) and the medical detachment (dental service). The DCAS is the only dental unit in the TO. The DCAS will provide field dental clinics in the corps and EAC and will deploy forward treatment teams to the division and brigade areas in the CZ. These teams will augment and reinforce medical units with organic dental assets.

a. The MRI DCAS has 91 enlisted and officer personnel, organized into four sections (see Figure A-1).

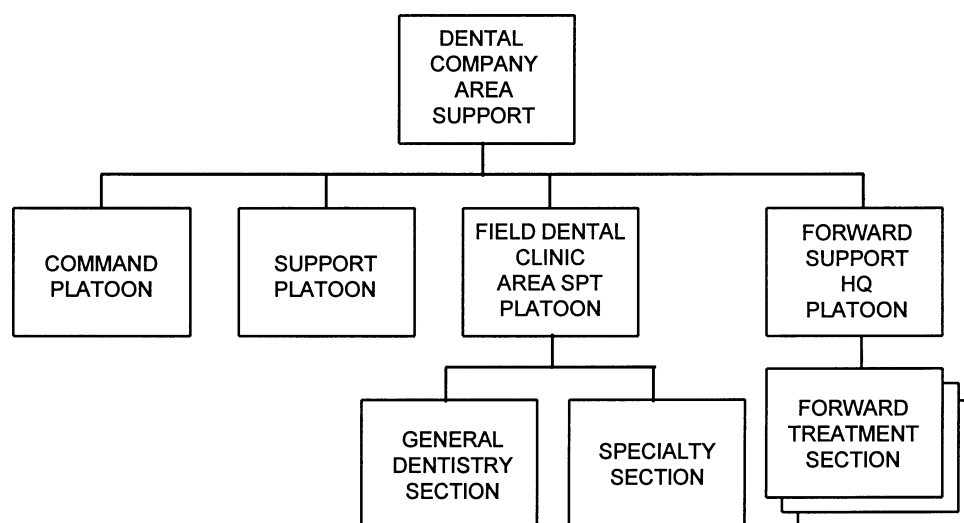


Figure A-1. Dental Company, Area Support, TOE 08478A000.

b. The headquarters and support section is composed of the commander, the executive officer, and the company's first sergeant, along with 17 support personnel. These support personnel specialize in NBC operations; unit supply; health service logistics; administration; and automotive repair, power generation, and medical equipment maintenance. A cook is assigned, but as the company does not have the capability for independent field feeding, the cook is generally attached to the supporting field feeding facility.

c. The dental clinic area support is composed of a specialty and general dentistry sections. The specialty section is composed of a comprehensive dentist, a periodontist, an endodontist, a prosthodontist, a

chief dental facility NCO, two preventive dentistry specialists, a dental laboratory specialist, and supporting dental specialists. The general dentistry section is composed of five general dental officers, a dental facility NCO, two preventive dentistry specialists, and supporting dental specialists.

d. The forward treatment platoon is composed of three forward treatment sections and a headquarters section. Each forward treatment section is composed of six dental teams. The officer in charge of each section is a major. A dental NCO and dental specialists assist the dental officers. The platoon leader and chief dental facility NCO are responsible for nonclinical support activities.

e. The forward treatment teams are 50 percent mobile and will reinforce and reconstitute organic division dental assets; during mass casualty situations, the teams will augment medical assets.

f. The dental company has a BOA of one per 44,000.

A-6. Employment of the Dental Company Area Support

The DCAS is the only TOE dental unit in the TO. The DCAS will provide field dental clinics in the corps and EAC. It will deploy forward treatment teams to the division and brigade areas in the CZ. These teams will augment and reinforce medical units with organic dental assets.

a. Dental Company Area Support. The DCAS is generally subordinate to the medical brigade of the corps MEDCOM, however, they could be directly assigned to the corps MEDCOM and theater MEDCOM. The number of DCAS employed will depend on the density of troop population to be supported, the size of the geographic area to be served, and Army fielding plans.

b. Phased Employment of Dental Services. Current capability based on organization and equipment provides dental units, individually and collectively, the flexibility and adaptability to provide dental support at all levels of warfare from the initial stages of the conflict until hostilities cease and US presence is terminated. Medical casualties are principally a function of combat activity and DNBI; however, dental casualties are principally a function of time. If a high state of dental readiness is assumed for troops before deployment, it follows that requirements for DSS units in the theater will increase as the theater matures.

c. Levels of Dental Services. As capability to provide dental services increases, so does the weight and cube of materiel necessary to provide that capability. Emergency dental kits are negligible in weight and cube; however, capability is severely limited. To provide the full clinical capability of the DCAS will require the larger dental equipment sets. In the earlier stages of deployment, capability for dental services must be balanced with the availability of scarce transportation assets and other priorities. Fortunately, the demand for treatment during earlier stages of deployment is relatively light and can be satisfied by fewer dental assets and lower levels of care. The phased employment of dental support into a TO will be a function of time and phase of combat operations. As always, planning is the key to successful development of theater dental support. It is incumbent on dental service planners at all levels to coordinate the employment of dental units in the theater throughout the operation and, in particular, during the predeployment planning phase.

A-7. Command, Control, Communications, Computers—Intelligence, Surveillance and Reconnaissance

Previously this appendix discussed operational tasks that must be performed by dental units across the continuum of military operations to include stability operations, and support operations, joint and combined operations in order to successfully accomplish the mission. Command and Control is yet another task that must be accomplished. It is addressed separately because it is an inherent part of each previously discussed task, as well as the means of coordinating all of the tasks toward the single objective of mission accomplishment.

a. Organizational Concept. The DCAS will be assigned to the Theater/Corps MEDCOM for C2. If there is no MEDCOM assigned, the DCAS will be assigned to the medical brigade. Elements (teams) from the DCAS may be attached to ASMB, as the supported operation requires. The dental section in the MEDCOM will coordinate the spectrum of dental support for an operation. In the absence of a MEDCOM, the senior DCAS Commander would function in a “dual hat” role as the medical brigade dental surgeon and thereby coordinate dental support for an operation. Overall control of dental resources in an operation or CZ may be complicated because approximately one-third of the dental officers assigned to TOE organizations do not fall under direct dental C2. Additional account must be taken of large geographic separations and the lack of extended communication systems. In order to maximize dental support, it is necessary to synchronize the activities of all dental resources available to the operation. This requires flexibility on the part of the commander and innovative application of C2 doctrine. Medical communications for combat casualty care (MC4) in conjunction with the Joint Theater Medical Information Program (J-TMIP) will provide the linkages necessary to achieve this.

b. General Capabilities. The MC4 is the AMEDD’s initiative to link units in the theater, not only with the Global Combat Support System-Army, the Combat Service Support Control System, and the Force XXI Battle Command Brigade and Below, but also to provide C2 capabilities. The broad scope of MC4 will provide a method of linking health care providers and diagnostics systems together into a seamless, diagnostic, treatment, situational awareness, and evacuation information network. Integration of existing and emerging digital communications technologies into the CHS system will begin with the individual soldier and proceed through the health care continuum. This will allow the AMEDD to identify preventive medical requirements and necessary treatment ensuring sustainability of the force.

c. Operational Concept. The MC4 will allow the patient access to dental treatment by enabling the patient to arrive at a treatment facility, or by taking the treatment capability to the patient. The unit commander will know the dental readiness status of his command and will know when and where his soldiers are located within the CHS system. The commander can determine who will be RTD and who will not. Higher level commanders will have the ability to get a broader picture of the general status of forces under their command and will know which assets are available to fill key locations. Class VIII supplies will flow to the precise location at the right time and in the correct amount.

d. Specific Capabilities. Dental care capability exists in Echelons II, III, IV, and V. The MC4 will provide an automated reporting capability with dental-specific operational data elements at these echelons. This will include integration of dental data elements into the Computerized Patient Medical/Dental Record. The MC4 will allow dental personnel at Echelon II to coordinate with dental elements at

Echelon III–V (to include hospital based oral and maxillofacial surgery services). Dental elements require the communication capabilities and linkages to ensure seamless integration of CHS. This will assure the integration of the ten AMEDD functional areas within themselves and with the Army and Joint systems of the twenty-first century.

A-8. Proposed Changes to the Tables of Organization and Equipment by Implementing the Medical Reengineering Initiative

The reorganization of DSS under MRI will—

a. Eliminate—

- Six hundred and eight personnel currently assigned in the L-Edition MF2K TOE for DSS in the TO.
- The dental battalion and reorganize it into a robust, modular designed, mobile dental company.
- The dental units in the National Guard, servicewide.
- Providing medical equipment maintenance and Class VIII supply to subordinate units of the dental battalion.

b. Reduce—

- The overall total number of DSS units.
- The need to evacuate a majority of dental patients/casualties beyond Echelon III MTF in theater.
- Communications requirements.

c. Increase—

- The total weight and cubic requirements of the dental company in the TO.
- The number of personnel within the dental company.
- The dental capability within Echelon II.
- The dependence upon appropriate elements of corps or division for legal, finance, personnel, administrative, and food services; supplemental transportation support; religious support; laundry, bath, and post exchange services, patient decontamination; and security of treated EPW.

- The support capability of the forward treatment platoon will support 21,000 troops (each team can support 1,125 troops).

d. Provide—

- Up to 18 modular mobile forward treatment teams for area support where only 6 were available under the current L-Edition TOE.

- More immediate care to a larger number of troops in Echelon II within the TO at point of need.

- An increase in the number of general dentists at Echelon II.

- Increased mobility of treatment teams closer to the front of Echelon II.

- Fifty percent mobility of each of the modular mobile forward treatment teams.

APPENDIX B

STANDARDIZED DENTAL CLASSIFICATION SYSTEM

Good oral health is essential to readiness posture of our forces. An excellent Standard Dental Classification System has been developed by Department of Defense (DOD) Health Affairs (HA) to identify varying degrees of dental health and readiness. In order to assure ongoing continuity of dental classification for all military personnel, this policy memorandum establishes policy on Dental Classifications for the DOD and is printed here in its entirety (HA Policy 97-020). Dental patients shall be classified as follows:

- a.* **Class 1.** Patients not requiring dental treatment or reevaluation within 12 months. Criteria:
 - (1) No dental caries or defective restorations.
 - (2) Arrested caries for which treatment is not indicated.
 - (3) Healthy periodontium, no bleeding on probing; oral prophylaxis not indicated.
 - (4) Replacement of missing teeth not indicated.
 - (5) Unerupted, partially erupted, or malposed teeth that are without historical, clinical, or radiographic signs or symptoms of pathosis and are not recommended for prophylactic removal.
- b.* **Class 2.** Patients who have oral conditions that, if not treated or followed up, have the potential but are not expected to result in dental emergencies within 12 months. Criteria:
 - (1) Treatment or follow up indicated for dental caries with minimal extension into dentin or minor defective restorations easily maintained by the patient where the condition does not cause definitive symptoms.
 - (2) Interim restorations or prostheses that can be maintained by the patient for a 12-month period. This includes teeth that have been restored with permanent restorative materials, but for which protective coverage is indicated.
 - (3) Edentulous areas requiring prostheses, but not on an immediate basis.
 - (4) Periodontal disease or periodontium exhibiting—
 - (*a*) Requirement for oral prophylaxis.
 - (*b*) Requirement for maintenance therapy; this includes stable or nonprogressive muco-gingival conditions requiring periodic evaluation.
 - (*c*) Nonspecific gingivitis.
 - (*d*) Early or mild adult periodontitis.
 - (5) Unerupted, partially erupted, or malposed teeth that are without historical, clinical, or radiographic signs or symptoms of pathosis, but which are recommended for prophylactic removal.

- (6) Active orthodontic treatment.
- (7) Temporomandibular disorder patients in maintenance therapy.

c. **Class 3.** Patients who have oral conditions that if not treated are expected to result in dental emergencies within 12 months. Patients should be placed in Class 3 when there are questions in determining classification between Class 2 and Class 3. Criteria:

(1) Dental caries, tooth fractures, or defective restorations where the condition extends beyond the dentinoenamel junction and causes definitive symptoms; dental caries with moderate or advanced extension into the dentin; and defective restorations not maintained by the patient.

(2) Interim restorations or prostheses that cannot be maintained for a 12-month period. This includes teeth that have been restored with permanent restorative materials, but for which protective coverage is indicated.

(3) Periodontal disease or periodontium exhibiting—

- (a) Acute gingivitis or pericoronitis.
- (b) Active moderate to advanced periodontitis.
- (c) Periodontal abscess.
- (d) Progressive mucogingival condition.
- (e) Periodontal manifestations of systemic disease or hormonal disturbances.

(4) Edentulous areas or teeth requiring immediate prosthodontics treatment for adequate mastication, communication, or acceptable esthetics.

(5) Unerupted, partially erupted, or malposed teeth with historical, clinical, or radiographic signs or symptoms of pathosis that are recommended for removal.

(6) Chronic oral infections or other pathologic lesions.

- (a) Pulpal or periapical pathology requiring treatment.
- (b) Lesions requiring biopsy or awaiting biopsy report.

(7) Emergency situations requiring therapy to relieve pain, treat trauma, and/or acute oral infections, or provide timely follow-up care (for example, drain or suture removal) until resolved.

(8) Temporomandibular disorders requiring active treatment.

d. **Class 4.** Patients who require dental examinations. This includes patients who require annual or other required dental examinations and patients whose dental classifications are unknown.

APPENDIX C

QUALITY ASSURANCE PLAN**C-1. General**

Quality assurance is an aspect of health care delivery that has greatly received increased visibility. In response, The Surgeon General has implemented a dynamic system of continuous checks and balances. This is a quality assurance plan. The objectives of the plan are to—

- Deliver dental care consistent with the capabilities of the treatment facility and staff qualifications.
- Reduce risk-creating incidents for the patients treated.
- Improve provider-patient communication and patient satisfaction.
- Evaluate practitioner performance objectively.

With respect to dental service, AR 40-68 addresses four major areas of interest—patient care evaluation, credentials/privileges, utilization management, and risk management. A detailed plan for implementation is also described.

C-2. Quality Assurance in the Theater of Operations

The commander is responsible for the management of the unit's quality assurance plan. Guidance and policy on quality assurance matters comes from the technical/staff dental surgeon channels. As with other matters for which policy is stated in references directed at peacetime care and organizations, quality assurance policy in AR 40-68 must be modified to fit the tactical situation. In any case, the *spirit of quality assurance* must be addressed. The soldier in the TO should have access to the highest possible quality of dental care, consistent with the tactical circumstances, as he would receive in a garrison dental facility. Establishment of a sound quality assurance plan by dental commanders and staff dental surgeons at all levels helps to ensure the individual soldier's accessibility.

C-3. Patient Care Evaluation

In the area of patient care evaluation, a system is required to evaluate the quality and appropriateness of the care provided. This system should also ensure that appropriate dental treatment records are compiled and maintained. Periodic audits also aids the commander and staff dental surgeons in evaluating distribution of care and compliance with theater treatment policies regarding the type of care to be provided. Dental radiology, infection control, and barrier protection are areas that should be of special command interest in the field environment.

C-4. Utilization Management

a. The tactical situation dictates to a large degree the type and availability of dental care in the TO. However, the principle of utilization management, providing the highest quality dental care possible in an efficient manner, should be the goal of DSS in the TO.

b. Army Regulation 40-68 directs the dental utilization management program to review—

- (1) Time management in patient care.
- (2) Patient waiting time.
- (3) Number of patients treated per unit of practitioner's time.
- (4) Equipment and facility management.
- (5) Logistics management.

c. Emergency and preventive care should be rendered as far forward as possible. This will result in the immediate RTD of the soldier and minimal evacuation of dental emergencies to the rear as soon as possible. Preventive, general, and specialty care will be rendered at the convenience (to include location and time) of the supported units to improve their level of oral health and to minimize the number of dental emergencies.

C-5. Risk Management

The risk management program is concerned with the prevention of accident and injury. For dental support in the TO, it encompasses the reduction of risk to patients, visitors, and unit personnel. For more information concerning this subject, see FM 100-14.

C-6. Dental Radiology

Some of the major considerations for dental radiology quality assurance in the TO are—

a. All personnel operating dental x-ray units in the field should know and minimize the risks, to include—

- (1) The proper way to set up and operate the equipment.
- (2) The techniques of substituting distance for shielding during x-ray operations.
- (3) Ensuring that exclusion areas are clear of all personnel prior to operation of the x-ray.

- (4) The proper way to develop radiographs and the hazards of the materials used.
- b.* All dental x-ray operators should have dosimeters (IM-9/PD) and these dosimeters must be handled and processed correctly.
- c.* All radiographic information must be entered in the patient's records.

APPENDIX D

**SAMPLE OUTLINE FOR A CLINICAL STANDING
OPERATING PROCEDURE****D-1. General**

The CSOP discusses only that information relating to clinical operations. The CSOP primarily covers policies and procedures. Policies are generally dictated through the dental technical chain and are not usually subject to a great deal of interpretation. Procedures selected for inclusion in the CSOP are those which meet the company's clinical mission. As with the TSOP, there is no officially authorized format for a CSOP; however, the information contained in paragraphs D-2 through D-7 of this appendix offers a suggested outline and format.

D-2. Publication Format

The most often used format for the CSOP is a loose-leaf binder arrangement. Clinical policies and procedures are subject to frequent change, and a loose-leaf arrangement can be easily updated. It is also relatively inexpensive and easily produced in multiple copies at the unit level.

D-3. Organization

Annexes with supporting appendixes and tabs are easy to change and update; therefore, maximum use of annexes in a CSOP is advisable. The CSOP should be organized as follows:

- Directive.
- Table of contents.
- Record of changes and corrections.
- Annexes, appendixes, and tabs.

D-4. Directive

The commander's directive should be the first page of the CSOP. This directive is a letter order signed by the commander that directs implementation of the CSOP. The directive should be on company letterhead in memorandum format.

D-5. Record of Changes and Corrections

Since information in the CSOP is subject to frequent change, include a page in the front of the binder to record changes and corrections. This allows the user and the DTF OIC to easily audit that particular copy of the CSOP. A single page formatted as shown in Figure D-1 will serve this purpose.

RECORD OF CHANGES AND CORRECTIONS				
(DTF Designation) of (Unit Designation) CSOP				
NUMBER	DESCRIPTION	AUTHORITY	DATE	ENTERED BY
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Figure D-1. Format for changes and corrections.

D-6. Annexes

Information in the CSOP is incorporated into annexes dealing with general areas. Annexes are supported by appendixes and tabs that deal with more specific issues. Information in annexes and supporting appendixes and tabs should not be redundant, nor voluminous. However, there should be sufficient detail to ensure proper performance of the task addressed or compliance with the policy prescribed. As with the TSOP, annexes to the CSOP are directive and address who, what, where, when, and how. Annexes are attached in alphabetical order after the body of the table of contents, with appendixes (numerical) and tabs (alphabetical) following their supported annexes. Annexes are generally formatted in the same manner prescribed for the TSOP (see paragraph E-7); however, as a matter of expediency and economy, some material may be incorporated as an appendix or tab in its original form simply by adding a tab or appendix designator. Some examples of this method are manufacturer’s instruction manuals, military technical manuals, or written policy directives from higher headquarters.

D-7. Content

The information contained in annexes is variable and will depend on the type of unit and, of course, guidance and policy from the unit commander and his higher headquarters. The following is an outline of annexes, appendixes, and tabs recommended for inclusion in a generic CSOP.

- ANNEX A—Organization. A general statement of the mission and organization of the company.
- APPENDIX 1—Dental Treatment Facility Layout. Line diagram of the suggested DTF layout.
- TAB A—Vehicle Load Plans. Load plans for the DTF’s personnel and equipment.
- APPENDIX 2—Personnel. Organization of personnel assigned to the DTF and delin-eation of duties.

- TAB A—Duty Description. Detailed description of individual and special duties as necessary.
- ANNEX B—Equipment. Listing of equipment assigned to the DTF.
 - APPENDIX 1—Operation and Maintenance. Statement of DTF policy for equipment operation and operator maintenance.
 - TAB A—Individual Major Items. Manufacturer’s operator manual or service technical manual, if available, for each major item of equipment, to include vehicles and generators.
 - APPENDIX 2—Maintenance Support Procedures. Prescribe procedure for obtaining maintenance support.
- ANNEX C—Supply.
 - APPENDIX 1—Class VIII Medical Supply. Statement of procedure for ordering, receiving, storing, and issuing Class VIII medical supplies.
 - APPENDIX 2—Property Control. Hand receipt procedure for maintaining accountability of the DTF’s TOE and CTA property.
 - APPENDIX 3—Precious Metals Control. Procedure for control of precious metals and finished fixed prosthodontic cases, if appropriate.
- ANNEX D—Patient Care Operations.
 - APPENDIX 1—Patient Treatment Policy. Statement of treatment policy, to include priority of care, if appropriate.
 - TAB A—Policy letters from higher headquarters.
 - APPENDIX 2—Patient Flow. Prescribe patient flow.
 - APPENDIX 3—Patient Records. Prescribe procedure for preparation and maintenance of patient records.
 - APPENDIX 4—Workload Reporting. Prescribe procedure for workload data accountability and reporting.
 - APPENDIX 5—X-ray Operations. Prescribe procedure for x-ray operations.
 - APPENDIX 6—Preventive Dentistry. Describe and define responsibilities for the DTF’s preventive dentistry program.

- **APPENDIX 7—Prosthodontic Care.** Prescribe procedure for provision of prosthodontic care, if appropriate.
- **APPENDIX 8—Referrals.** Prescribe procedure for referral and evacuation of patients for treatment available at other DTFs.
- **ANNEX E—Contingency Operations.**
 - **APPENDIX 1—Reaction to Medical Emergency.** Prescribe procedure to be followed in the event of a medical emergency.
 - **APPENDIX 2—Reaction to Enemy Action.** Prescribe the DTF's response in the event of enemy action, to include handling of patients within the DTF.
 - **TAB A—NBC Response.**
 - **TAB B—Ground Attack.**
 - **TAB C—Air Attack.**
 - **APPENDIX 3—Mass Casualty Response.** Prescribe the DTF's responsibilities in the event of mass casualties.
- **ANNEX F—Infection Control.** Statement of required infection control procedures.
 - **APPENDIX 1—Personal and Patient Protection.** Prescribe procedure for protection of health care provider and patient.
 - **APPENDIX 2—Sterilization of Instruments.**
 - **APPENDIX 3—Disposal of Infectious Waste.**
- **ANNEX G—Relocation.** Procedures for emplacement and displacement of the DTF.
 - **APPENDIX 1—Dental Treatment Facility Setup.**
 - **APPENDIX 2—Dental Treatment Facility Takedown.**
 - **APPENDIX 3—Provision of Dental Treatment During Relocation.** Prescribe procedure for provision of emergency dental treatment during relocation.
- **ANNEX H—Safety.** Statement of safety policies and procedures.
 - **APPENDIX 1—X-ray Safety.**

- TAB A—Radiation Exposure Monitoring.
- APPENDIX 2—Fire Safety.
- APPENDIX 3—Hearing Conservation.
- APPENDIX 4—Hazardous Material Handling.
- ANNEX I—Physical Security. Statement of physical security plan for the DTF.

APPENDIX E

**SUGGESTED FORMAT FOR A TACTICAL STANDING
OPERATING PROCEDURE****E-1. General**

Paragraphs E-4—E-5 of this appendix discusses TSOP and states the requirement for dental units to have one. Field Manual 101-5 provides specific guidance on SOP and should be referenced in the development of the unit's TSOP. It is important to reemphasize that the TSOP of the parent unit is the most important source of guidance for the TSOP of its subordinates. There is no prescribed format for a TSOP; however, the information contained in the remainder of this appendix offers a suggested format based on the review of a number of dental unit TSOP currently in use.

E-2. Publication Format

A number of possibilities exist for the format of a TSOP. Three are listed below with advantages and disadvantages.

- *Loose-leaf binder*—least expensive and easily updated; however, the requirement for faithful updates by users and the potential for pages being lost through hard use is likely to produce a number of versions among the TSOP users.
- *Bound volume*—best method to maintain standardization of copies and easiest to handle and use; however, it is more expensive and subject to availability of a printing facility. It is also difficult to update.
- *Pocket-sized bound volume*—easy to carry and a more ready-reference; however, more easily lost and more difficult to read. Otherwise, pocket-sized bound volume is the same as a standard-sized bound volume.

E-3. Contents

The TSOP should contain the following sections:

- Directive.
- Table of contents.
- Record of changes and corrections.
- General information.
- Annexes, appendixes, and tabs.
- Index.

The information contained in each of these sections, other than the table of contents, which is self-explanatory, is variable and will depend on the type of unit and guidance contained in the TSOP of the higher headquarters.

E-4. Directive

The directive should be the first page of the TSOP. The directive is the letter order signed by the commander directing implementation of the TSOP. The directive should be in memorandum format (Figure E-1) on unit letterhead for distribution to subordinate units and elements to which the TSOP applies.

OFFICE SYMBOL (MARKS NUMBER)

DATE

MEMORANDUM FOR Personnel Assigned to (Unit Designation)

SUBJECT: (Unit Designation) Tactical Standing Operating Procedure (TSOP)

1. PURPOSE: One sentence statement of purpose.
2. APPLICABILITY: Statement of the unit's subordinate units and elements to which the TSOP applies.
3. GENERAL: Any administrative information concerning the TSOP deemed necessary such as distribution of copies, where TSOP is to be maintained, and procedure for posting corrections and changes. The scope and content of this paragraph is a matter of preference; however, it should be a length that allows the entire directive to be a single page.
4. POINT OF CONTACT: Statement of which individual is the point of contact for recommendation of change and other matters relating to the TSOP.

Figure E-1. Sample format of directive.

E-5. Record of Changes and Corrections

A good TSOP requires regular maintenance to ensure currency and relevance. A page which acts as a record of changes and corrections in the front of the book allows the user and the commander to easily audit that particular copy of the TSOP. A single page formatted as shown in Figure E-2 will serve this purpose.

RECORD OF CHANGES AND CORRECTIONS				
Unit Designation TSOP				
NUMBER	DESCRIPTION	AUTHORITY	DATE	ENTERED BY
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Figure E-2. Format for changes and corrections.

E-6. Annexes

Most information relating to a specific procedure or area is incorporated into an annex dealing with that specific subject. Annexes are, in turn, supported by appendixes and tabs, as necessary, to the appendixes. As with the entire TSOP, information should not be redundant or voluminous; nevertheless, it must provide necessary guidance in enough detail to perform the prescribed procedure. Annexes address who, what, where, when, and how. They do not address why. Annexes are attached in alphabetical order after the body of the TSOP. Appendixes are numbered and are attached immediately after the annex they support. Tabs are lettered and are attached immediately after the appendix they support.

a. Formats. Formats for annexes, appendixes, and tabs should be standardized throughout the TSOP. Annexes, appendixes, and tabs do not have signature blocks.

b. Topics. Topics for annexes and their supporting appendixes and tabs depend on a number of factors. Those topics covered in the body of the TSOP need not be repeated unless amplification is required. Again, the TSOP of the parent headquarters is the best guide. Other topics to be considered are those topics specifically cited in this FM as being matters that should be included in the unit TSOP. Individual soldier tasks critical to unit operations and survival should also be considered for inclusion.

E-7. Index

A well-constructed, comprehensive index of the material contained in the TSOP and its supporting annexes, appendixes, and tabs is a valuable complement to the TSOP. The addition of an index facilitates use of the TSOP, particularly its use as a ready reference.

APPENDIX F

FORCE PROTECTION STRATEGIC DEPLOYABILITY DATA FOR DENTAL SERVICE SUPPORT

F-1. General

This appendix provides strategic deployability data for DSS for MRI units. It is only a general reference and must be tailored to the specific unit and equipment.

F-2. Strategic Deployability Data

Table F-1 provides strategic deployability data for Dental Service Support, MRI units.

Table F-1. Dental Service Support Medical Detachment Data for MRI Units

UNIT	SRC	WEIGHT (LBS)	CUBIC FT	SQ FT	TRANSPORT MODES						PASSENGER (AIR)	
					AIR			SURFACE				
					PURE FLEET TOTAL			SHIP BY % SQ FT		RAIL	PAX	B747 (400 SEAT)
					C141	C17	C5	RORO	LMSR	(STD 89' CAR)		
DENTAL CO, AREA SPT*	08478A000	25,942	2,453	320	3	2	1	1.7%	1.0%	5	91	23%
DENTAL CO, AREA SPT**	08478A000	82,504	9,946	1,357	8	4	3	3.6%	2.2%	12	91	23%

NOTE: The percentage figures in the RORO, LMSR, and B747 columns are the SRC space requirements of the ship capacity.

LEGEND:

LMSR Large Medium-Speed Roll-On/Roll-Off
PAX Passenger
RORO Roll-On/Roll-Off
SRC Standard Requirement Code
STD Standard

* (MRI-OBJ) without vehicles and equipment
** (MRI-OBJ) with vehicles and equipment

GLOSSARY

ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

AAR	after-action report
ABCA	American, British, Canadian, and Australian
ACR	armored cavalry regiment
ADL	area dental laboratory(ies)
AMEDD	Army Medical Department
AMEDDC&S	Army Medical Department Center and School
AO	area of operations
AOC	area of concentration
AOR	area of responsibility
AR	Army regulation
ASMB	area support medical battalion
ASMC	area support medical company
ATM	advanced trauma management
attn	attention
BI	battle injury
bn	battalion
BOA	basis of allocation
BTOE	base table(s) of organization and equipment
C2	command and control
CHL	combat health logistics
CHS	combat health support
co	company

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COMMZ communications zone

CONUS continental United States

CSH combat support hospital

CSOP clinical standing operating procedure

CSS combat service support

CTA common table(s) of allowance

CZ combat zone

DA Department of the Army

DCAS dental company area support

DCEP Dental Combat Effectiveness Program

DD/DOD Department of Defense

DE directed energy

DEN dental

DEPMEDS Deployable Medical Systems

DES dental equipment set(s)

det detachment

DISCOM division support command

DISE Distribution Illumination System, Electric

DISS dental instrument and supply set(s)

DMS dental materiel set(s)

DNBI disease and nonbattle injury

DS direct support

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DSS dental service support

DTF dental treatment facility

EAC echelons above corps

Echelons of medical care:

Echelon I. The first medical care a soldier receives is provided at this echelon. This care includes immediate lifesaving measures, disease and nonbattle injury prevention, combat stress control preventive measures, casualty collection, evacuation from supported unit to supporting medical treatment facility, and treatment provided by designated individuals or treatment squads. Echelon I elements are located throughout the combat zone and the communications zone. These elements include self-aid/buddy aid, the combat lifesavers, the combat medics, and the physicians and physicians assistants.

Echelon II. Duplicates Echelon I and expands services available by adding dental, laboratory, x-ray, and patient-holding capabilities. Emergency care (advanced trauma management), including beginning resuscitation procedures is continued. (No general anesthesia is available.) If necessary, additional emergency measures are instituted; however, they do not go beyond the measures dictated by the immediate need. Those patients who can return to duty within 72 hours are held for treatment. The above functions are performed by medical companies organic to—

- Support battalions of separate maneuver brigades.
- Support squadrons of armored cavalry regiments.
- Support battalions of division support commands.
- Medical companies of medical battalions (area support) (corps and communications zone).

Echelon III. This echelon of care expands the support provided at Echelon II (division Echelon). Care is provided for all categories of patients in a medical treatment facility with the proper staff and equipment. Patients who are unable to tolerate and survive movement over long distances will receive immediate surgical care in hospitals as close to the division rear boundary as the tactical situation will allow. Surgical care may be provided within the division area under certain operational conditions. Echelon III hospital care is provided by the combat support hospital.

Echelon IV. This echelon of care includes treating the patient in a combat support hospital staffed and equipped for general and specialized medical and surgical care. The combat support hospital and medical company may also be deployed in the communications zone to support rear operations contingencies. The combat support hospital provides hospitalization for general classes of patients and reconditioning and rehabilitative services for those patients who can return to duty within the theater

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evacuation policy. It serves as the primary conduit for patient evacuation to the continental United States. (For additional information on the echelons of medical care, refer to FM 8-10.)

EPW enemy prisoner(s) of war

fax facsimile

FH field hospital

FM field manual

FMC field medical card

FSB forward support battalion

FSMC forward support medical company

ft feet

fwd forward

G1 Assistant Chief of Staff (Personnel)

GH general hospital

GWS Geneva Convention for the Amelioration of the Condition of the Wounded and Sick

HA Health Affairs

HHD headquarters, headquarters detachment

HQ headquarters

J-TMIP Joint Theater Medical Information Program

kV kilovolts

kW kilowatts

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lbs pounds

LMSR large medium-speed roll-on/roll-off

mA milliamperes

MC4 medical communications for combat casualty care

MED medical/medium

MEDCOM medical command

MEDLOG medical logistics

METL mission essential task list

METT-TC mission, enemy, terrain, troops, time available, and civilian considerations

MF2K Medical Force 2000

MMS medical materiel sets

MOPP mission-oriented protective posture

MOS military occupational specialty

MRI Medical Reengineering Initiative

MSB main support battalion

MSMC main support medical company

MSR main supply route

MTF medical treatment facility

MTOE modified table of organization and equipment

MWD military working dog

NATO North Atlantic Treaty Organization

NBC nuclear, biological, and chemical

NCO noncommissioned officer

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NCOIC noncommissioned officer in charge

OBJ objective

OIC officer in charge

OPLAN operation plan

OPORD operation order

Pam pamphlet

PAX passenger

PLL prescribed load list

pros prosthetics

PVNTMED preventive medicine

QSTAG Quadripartite Standardization Agreement

RDD radiological dispersal device(s)

RORO roll-on/roll-off

RTD return to duty

S1 Adjutant

SF standard form

SFG special forces group

sm small

SOP standing operating procedure

spt support

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sq square

SRC standard requirement code

SSPLAN service support plan

STANAG standardization agreement

STD standard

STP Soldier Training Publication

svc service

TB MED technical bulletin, medical

TM technical manual/team

TO theater of operations

TOE table(s) of organization and equipment

trmt treatment

TSOP tactical standing operating procedure

US United States

WARNO warning order

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ABCA QSTAGs

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- 520. *Operation Orders, Tables, and Graphs for Road Movement*. October 1981.
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*This source was also used to develop this publication.

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